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ABSTRACT

Objectives of this study were (1) to determine the effect of preschool experience on the personal and social adjustment and school readiness and achievement of the deprived child, (2) to determine what combination of age at intervention and treatment intensity was most effective, and (3) to assess the effects of parent involvement on the child's academic performance. Phase I tested children in the Preschool Readiness Program, summer Head Start children, low income children without preschool experience, and middle income children who entered first grade in September, 1967. Phase II consisted of experimental and control groups who entered first grade in September, 1968. Results of the Metropolitan Readiness Test and the Peabody Picture Vocabulary Test showed that disadvantaged children who participated in the Preschool Readiness Program were better prepared to compete with children without such experience. This was confirmed for both Phase I and Phase II, and both phases made significant gains on the PPVT. Phase I children made significant gains on the MRT, but middle income children scored highest in Phase II. There was no significant change in personal adjustment. Children whose parents were actively involved showed greater achievement. (DR)

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FINAL REPORT

AN EVALUATION OF THE PRESCHOOL READINESS CENTERS PROGRAM IN EAST ST. LOUIS, ILLINOIS

JULY 1, 1968 - JUNE 30, 1969

PROJECT HEAD START
DIVISION OF RESEARCH AND EVALUATION
OFFICE OF ECONOMIC OPPORTUNITY

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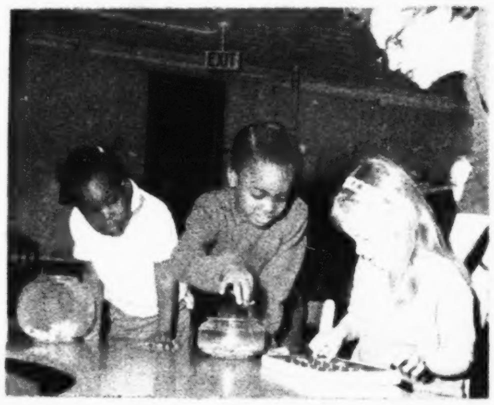

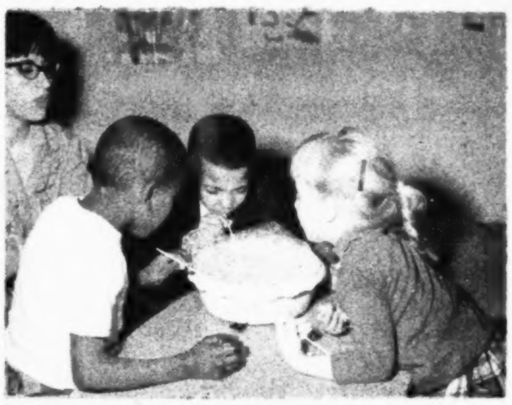

PRESCHOOL READINESS CENTERS
East St. Louis, Illinois

INTRODUCTION: PROBLEMS AND OBJECTIVES

Since the advent of the War on Poverty, Head Start has been one of the best known and most popular of the poverty programs. To its advocates the program was seen as a means of improving the classroom performance of the disadvantaged child by offering experiences and instruction designed to increase verbal ability, and to accelerate cognitive development. Evaluation of early Head Start programs produced guarded optimism, and some conflicting results.

Recently, after several years of experience, Head Start programs throughout the country are being scrutinized with a more critical eye. Follow-up results have often been disappointing. The child did not do well in school and tended to lose all the gains that were made. At the end of the first or second grade he did no better than the child without Head Start experience.

Blame for the poor classroom performance of Head Start children was often placed on the public schools, not entirely with justification. Head Start programs vary, as do public school systems and teachers. It is certain that some Head Start or preschool programs are more successful than others in preparing the disadvantaged child for school. Many elements may enter into a successful or moderately successful program: type of program and curriculum, teacher enthusiasm and expectation, teacher competence and training, community and staff commitment.

The study reported here is a continuation of a research project designed to evaluate the Preschool Readiness Centers Program (a year-round Head Start) in East St. Louis, Illinois. The project consisted of two phases. Phase I involved a follow-up of experimental and control children who entered first grade in September, 1967. Phase II involved experimental and control children who entered first grade in September, 1968.

There are six centers currently in operation in East St. Louis serving 255 children. The stated objectives of the Preschool Readiness Centers Program are the development of effective cognitive skills for the children of the lower socio-economic class, broadening of parents' understanding of the needs of preschool children and strengthening of parents' motivation and aspirations for the education of their children. Five centers were originally staffed with non-professional teachers who had completed a sixteen-week training program and practicum funded by the Office of Education. (Contract No. OE 6-85-040.) Many of these teachers are still in the program.

Evaluation of the success or failure of a preschool program staffed with trained para-professionals seemed to be a vital correlate of the program. It was hypothesized that disadvantaged children who participated in the Preschool Readiness Centers Program would be better prepared (as measured by certain objective test scores) to compete with children from the same socio-economic level who did not have such experience. Implicit in the verification of this hypothesis is the justification for using trained non-professional persons as teachers and teacher-aides in the preschool centers.

In addition to the use of non-professionals the structure of the centers was designed to facilitate evaluation of the effects of age at intervention and treatment intensity. Each center had three classes composed of 15 children. Children from 2½ to 6 years were accepted. Two of the classes met two half-days a week; the other class met four half-days a week. Age groups and schedules were set up for each center to allow assessment of the effect of differing age at entry and schedule combinations. Because of the rapid turnover of children in these highly mobile center areas, the schema for age groups and age at entry combinations was impossible to maintain.

Thus, the study reported here has certain limitations. It is not based upon a rigid experimental model, but represents a compromise dictated by practical considerations. It was, for example, impossible to pre-test the control groups, whereas the children comprising the experimental Group I were tested on admission to the center program. Ideally, the control children should have been tested at the same time to take into account practice effect, as well as experimental conditions. Practice effect would seem to be more pertinent to the PPVT; the Metropolitan Readiness Test was new to all the children. Nevertheless, the children in experimental Group I were more likely to feel at ease in a testing situation. The study, then, is more accurately conceived of as an attempt to evaluate a demonstration preschool program which has been in operation in East St. Louis since 1965. As such, generalizations must be made with caution.

Furthermore, difficulties often arise when the program being evaluated cannot be controlled by the evaluator. In this case, the research staff was faced not so much with lack of cooperation, as delay in implementing agreed upon changes in the preschool program, and in the failure to follow agreed upon procedures. These unforseen exigencies required some modification of the original research design. Nevertheless, the overall design and objectives remain relatively unchanged and some of the findings would seem to have a certain degree of relevance for other Head Start centers and preschool programs.

The research reported here is a continuation of a study funded by Project Head Start, Division of Research and Evaluation, Office of Economic Opportunity. The study involves the follow-up and evaluation of academic progress and performance of children experiencing the Preschool Readiness Centers Program. (See Appendix A for a summary of the structure and various components of the program.)

The primary objectives of the study were:

1. To determine the effect of preschool experience on the personal and social adjustment and school readiness and achievement of the deprived child.

2. To determine what combination of age at intervention and treatment intensity was most effective.

3. To assess the effects of parent involvement on child's academic performance.

POPULATION AND SAMPLE

East St. Louis, Illinois is a singularly depressed city of 80,000 population. In 1960 the East St. Louis population was about 45% Negro. Continued immigration of Negroes from the South, and emigration of whites has increased that percentage to approximately 60%. The overall unemployment rate is almost four times that of the national rate. In 1963 the median income for white households was $5,125; for Negro households the median income was $2,509.[1]

The present situation in East St. Louis has its roots in a long history of interrelated social and political problems. Labor strife, political exploitation and the continued loss of industry, together with increased in-migration of Negroes from the rural South has brought about wide-spread unemployment, poverty and despair.

Increasingly large sums of Federal money are currently being expended in East St. Louis on training programs for the unskilled, improved education for adults and children, and in the razing and rebuilding of some of the city's most deteriorated neighborhoods. Nevertheless, unemployment remains high, industrial production continues to decline, and the flight to the suburbs accelerates.

This, then, is the milieu from which the sample children were drawn.

Phase I involves the follow-up of experimental and control sample children who entered first grade in September, 1967.

The intensive treatment group, Experimental Group I (X-1) was comprised of 105 first grade children who had experienced the Preschool Readiness Centers Program.

The second treatment group (X-2) consisted of 93 children from center areas who had attended the summer Head Start Program, but who did not take part in the year-round

Preschool Program. These two groups were compared on socioeconomic indices, neighborhood areas and age.

Control Group I (C-1) was selected from school records. These were children from low income families who were attending center area schools and who had no prior preschool experience.

Control Group II (C-2) consisted of children with no preschool experience who were attending schools outside a center area, but who were from similarly low income families.

Control Group III (C-3) was composed of children from middle income families. These were children with no preschool experience who also were attending the center area schools.

Control Groups 1 and 2 were combined because preliminary analysis indicated no appreciable difference between these two populations.

It was planned originally to have a control group of 'middle class' children rather than 'middle income' children. However, very little information about the child's family is available on school records. Consequently, the control group was chosen by the principals and teachers on the basis of father's occupation or personal knowledge of the family. The children chosen, for the most part, were from 'working class' families, and not what is generally termed middle class. It was conceded that it would be nearly impossible to obtain a sample of middle class children in the inner-city schools of East St. Louis.

An investigation was made of some of the actual differences between the middle income and the low income sample children. Information about the families of children in the experimental group was available from the enrollment form filled out by the parents at the time of child's enrollment into the center program. Interviewers of sample control group families collected similar pertinent data on family background. No background data was available on the families

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of X-2 children (Summer Head Start), but by the nature of the program it could be expected that these families were similar to those of the X-1 children.

It was apparent that the children of X-1 and C-1 and C-2 (low income) groups came from similarly deprived homes, but that there were important differences between these children and the middle income (C-3) children living in the same neighborhoods. Some of the major differences had to do with parent education; parents of middle income children were better educated. All had completed grade school; 70 percent of the fathers and 80 percent of the mothers had completed high school and 40 percent of the fathers had attended college.

Conversely, some of the parents of children in Control Groups 1 and 2 had not completed grade school, and none had attended college. Mothers were likely to have more education than fathers. Less than 25 percent of the fathers had finished high school. The fathers of X-1 children had more years of schooling than the mothers, but less than half of them had finished high school.

The greatest contrast between the groups was where parents received their education. Only one-third of the mothers of children in Control Groups 1 and 2 attended school in East St. Louis; the majority attended school in the South. Similarly, over 75 percent of the fathers and 70 percent of the mothers of X-1 children were born in the South. On the other hand, over 60 percent of C-3 mothers were educated in East St. Louis. Parents, then, of X-1 and C-1 and C-2 children not only had a lower educational level, but in all likelihood one of poorer quality.

Another distinct difference between the groups was the presence or absence of a father in the home. In most of the middle income homes the father was present and employed. Less than half of the children in X-1 and C-1 and C-2 groups had a father living at home. Where the father was present, approximately half were unemployed. In addition to the fact that C-3 fathers were employed, about half of the mothers were also employed, as compared with only 10 percent of X-1 mothers. Over half of the families of X-1 and C-1 and C-2 children received financial assistance from ADC.

It was concluded that the X-1 and Control 1 and 2 children came from similar family background, and that this background differed in certain important aspects from that of the middle income children who lived in the same neighborhoods and attended the same schools.

This year the children of Phase I who were located were tested again. The number of children in the original Phase I groups and the number located and tested is presented below:

Group	Original Group	Number Located
Preschool Children (X-1)	105	97
Summer Head Start Children (X-2)	93	79
Low Income Children Without Preschool Experience (C-1)	79	57
Middle Income Children (C-3)	59	40
Total	336	273

Phase II consisted of those children who entered first grade in September 1968. The experimental and control groups and the number of children tested in each are listed below:

Group	Number Tested
Preschool Children (Experimental Group I)	120
Summer Head Start (Experimental Group II)	60
Low Income Without Preschool Experience (Control Group I)	48
Middle Income Children (Control Group III)	55
Total	283

Because it was virtually impossible to find middle income children with no preschool experience in the inner-city schools, the C-3 children were selected from several fringe area schools where the population is more stable and more nearly middle-class. Thus, the middle income group of Phase II is not strictly comparable to that of Phase I.

DATA AND INSTRUMENTATION

Cross sectional data on the children in Experimental Group I, both Phase I and II, was obtained from an enrollment information form completed when the child enrolled in the preschool program. Additional information was obtained for approximately half of the children during home visits by the social worker.

Within a few weeks after the child entered the program the Peabody Picture Vocabulary Test (PPVT) was administered. Admittedly, the PPVT has some limitations for testing disadvantaged children. Experience in testing children from the low socio-economic class in an experimental nursery school program in Philadelphia indicated that the best measure of assessing effects of the nursery school program was the Stanford-Binet Test. It was found that the IQ scores derived from the PPVT were an average of 13 points lower than those derived from the Draw-A-Man, Philadelphia Verbal Abilities Test, and the Stanford-Binet. Nevertheless, the limitations of the PPVT do not seem to be particularly pertinent to this project. Scores were used primarily to make comparisons between groups, and to measure pre-post gains in at least one area of intellectual development.

In an attempt to measure change in the child's personal and social adjustment, a modified and shortened version of the California Test of Personality was given to all Phase I children upon entry into first grade. These same children, now in the second grade, were given the test again in September, 1968.

Woolner's Preschool Self Concept-Picture Test has been administered during the past year on an experimental basis to the Phase II children in the Preschool centers. Because of time and staff limitations, only a small number of experimental children were re-tested on entry into first grade.

All experimental and control group children (both Phase I and Phase II) were tested upon entry into the first grade by means of the PPVT and the Metropolitan Readiness Test. In May, 1968 the Phase I children were given the Metropolitan Achievement Test. The test was not administered to Phase II children because the school district routinely uses the Gates-MacGinitie Reading Test at the end of the school year. It was felt that administration of the MAT would simply be a duplication of effort. The Gates Reading scores were supplied by the Board of Education. Other data pertaining to child's progress in school was obtained from school records.

PHASE I: COMPARATIVE TEST RESULTS

Phase I consists of experimental and control children who entered first grade in September, 1967. The children were tested in the fall upon entry into first grade, and in the spring were given the Metropolitan Achievement Test. The children who were located were tested again in September, 1968. The over-all attrition rate for Phase I was rather high; twenty percent of the sample children were not located, although only 8 percent of the Preschool children (Experimental Group I) were lost to the study. Phase I children who were retained in the first grade (almost 30 percent) are included in the follow-up.

The Preschool Readiness Centers program placed emphasis on verbalization and concept development; thus, it was expected that the children in Experimental Group I would score significantly higher on the Peabody Picture Vocabulary Test, a measure of verbal ability. Upon entry into first grade the X-1 children did score significantly higher on the PPVT. These children, of course, were accustomed to taking tests and were more likely to be comfortable in the test situation. For most of the other sample children the test taking situation, as well as school experience, was largely unfamiliar and, perhaps, frightening. Nonetheless, in spite of the recognized weaknesses and biases of the tests and testing situations, it was felt that the scores would provide a valid measure of the functioning level of the child faced with the demands of the educational situation.

The Peabody Picture Vocabulary Test

Comparative mean IQ scores for the children of Phase I are presented in Table 1. The t test was used as the test of significance of differences between the group means.

Table 1

COMPARATIVE MEAN PPVT SCORES OF STUDY CHILDREN

Group	1st Grade	Sig. Level	2nd Grade	Sig. Level
X-1	88.8		90.4	
X-2	75.0	$< .001$	88.2	
C-1, 2	72.7	$< .001$	85.3	$< .05$
C-3	78.7	$< .01$	94.9	

The children experiencing the Readiness Centers program scored significantly higher on the first grade PPVT test than the other experimental and control groups. At the beginning of the second grade the differences between the X-1 and the other groups were not significant, with the exception of the low income group with no preschool experience. All groups except X-1 made significant gains during first grade, and the middle income children scored higher than the Preschool children upon entering second grade, but not significantly so. The pre-intervention IQ score for the X-1 children was 77.6, not significantly different from the pre IQ scores of the other groups.

The California Test of Personality

A modified, shortened version of the California Test of Personality was given to all sample children last fall upon entry into first grade, and again this fall. Even with the shortened version there was some question of its validity for a disadvantaged preschool population. Some children simply refused to answer certain questions at all, particularly those which seemed to have some emotional impact. This limitation was less apparent for the second grade children.

It was expected that the X-1 children would score higher than the control children on personal and social ajustments. While in each case the mean score for X-1 children was higher than that of the other groups, none of differences were significant.

The first grade personal and social adjustment scores of X-1 children represent a significant positive change from the initial center test scores. There is some reason to believe, however, that this gain is primarily a function of age rather than the result of the center program since there was essentially no difference between any of the first grade groups.

Table 2 presents comparative mean scores for the modified California Test of Personality.

Table 2

COMPARATIVE CTP SCORES FOR PHASE I CHILDREN

	PERSONAL ADJUSTMENT			SOCIAL ADJUSTMENT		
	Pre-school Center	1st Grade	2nd Grade	Pre-school Center	1st Grade	2nd Grade
X-1	19.7	22.0	22.2	21.6	24.8	28.7
X-2		21.0	21.3		23.7	27.5
C-1, 2		20.7	21.9		23.6	27.0*
C-3		21.7	22.8		24.0	27.8

* $p < .05$

There was no significant change in personal adjustment for any of the experimental or control groups. The second grade social adjustment scores, however, represent a significant positive change for all groups. It was expected that social adjustment would increase during the first year of school. The very nature of the classroom situation requires a certain degree of social adjustment. Although the low income children made significant gains in social adjustment, the mean score was significantly lower in the second grade than that of the Preschool children.

The California Test of Personality consists of two sections: Personal Adjustment and Social Adjustment. Both sections of the test are made up of several components. These components or sub-tests are:

Personal Adjustment

Self Reliance
Sense of Personal Worth
Sense of Personal Freedom
Feeling of Belonging
Withdrawing Tendencies
Nervous Symptoms

Social Adjustment

Social Standards
Social Skills
Anti-social Tendencies
Family Relations
School Relations
Community Relations

An analysis of the stability and change in each of the above components was made to determine which aspect of personal and social adjustment are most amenable to change. The following discussion refers only to the stability or instability of the various components, without regard to the direction of the changes.

The most stable component of personal adjustment for all experimental and control groups was 'sense of personal freedom.' The percentage unchanged ranged from 71 percent for middle income children (C-3) to 81 percent for low income children (C-1). In social adjustment the most stable component for each of the groups was 'community relations.'

The least stable components in both Personal and Social Adjustment differed from group to group. In Personal

Adjustment the least stable components were 'nervous symptoms' and 'withdrawing tendencies.' In Social Adjustment the greatest changes for both experimental groups (X-1, X-2) occurred in 'anti-social tendencies.' For the low income control group the greatest change occurred in 'nervous symptoms' and for the middle income control group changes occurred more often in the 'withdrawing' component.

It is interesting to note that the most stable elements in both Personal and Social Adjustment are the same for each of the four groups. These components are 'sense of personal freedom' and 'community relations.' Perhaps these characteristics or attitudes are crystalized at an earlier age, or are simply less subject to change, either positive or negative.

On the other hand, the least stable of the Personal Adjustment items, 'nervous symptoms' and 'withdrawing' are, perhaps, more susceptible to the stress and pressures of the immediate situation. The least stable of the Social Adjustment components were, 'anti-social tendencies', 'family relations' and for the middle income children 'social standards.'

An examination of the direction of the changes in Personal and Social adjustment of the study children revealed some effects of the public school situation. All groups suffered a net loss in 'self reliance.' Experimental Group I also experienced a loss in 'sense of personal freedom' and a gain in 'nervous symptoms.' The middle income children scored higher on the post test in two negative components; 'withdrawing' and 'anti-social tendencies.' With the exception of the X-2 group, the greatest single negative change was an increase in anti-social tendencies.

Net gains in Social Adjustment were greatest for the Summer Head Start group (X-2), and the middle income control group. The low income control group made a much smaller net gain than the other groups.

Combs and Soper[2] report that as children go from preschool programs to first grade their feelings of inadequacy increase. They are less likely to feel that the teachers like them, or are interested in helping them. It is evident that the school environment does play a role in the Personal and Social Adjustment of the child. This role is not always conducive to good adjustment. There was, for example, a great loss in 'self-reliance' for all groups. The Self Reliant component is defined as describing an individual who is able to do things independently of others, depends upon himself and directs his own activities. It is obvious that these characteristics would cause conflict in the classroom operation. Another component, 'sense of personal freedom', would also tend to be restricted in a classroom devoted to maintaining order. Schools, too, seemed to increase anti-social behavior; perhaps only because they create more opportunity for conflict. School adjustment, then, may take place at the expense of the personal or social adjustment of the school child.

The Metropolitan Achievement Test

In May, 1968 the Metropolitan Achievement Test was administered to as many of the sample children as could be readily located. While the Preschool children (X-1) began the school year with significantly higher scores on the PPVT and the MRT than the children of groups X-2 and C-1, C-2, by the end of the first grade the differences in achievement, as measured by the sub-scales of the Metropolitan Achievement Test were not significant.

School District #189 administers the Gates-MacGinitie Reading Test each year to all primary grades. This test is composed of two parts: Vocabulary and Comprehension. These two sub-tests are equivalent to the Word Knowledge and Reading section of the Metropolitan Achievement Test. A comparison of the Gates and MAT standard scores and grade level is presented below. Both tests were given in May.

Table 3

COMPARISON OF SELECTED MAT SUB-SCALE SCORES
AND GATES-MacGINITIE TEST SCORES

	MAT WORD KNOW.		GATES VOCABULARY		MAT READING		GATES COMPRE.	
	SS	Grade Level	SS	Grade Level	SS	Grade Level	SS	Grade Level
X-1	46	1.8	44	1.7	41	1.6	42	1.5
X-2	42	1.7	41	1.6	39	1.6	41	1.6
C-1, 2	43	1.7	39	1.5	39	1.6	46	1.6
C-3	52	2.0	51	2.2	47	1.9	48	1.7

It can be seen that the two tests produced almost identical results. The greatest discrepancy existed for the C-3 children. Reading scores appear to be somewhat more consistent than the vocabulary test scores.

This year the Gates Reading Test was given to all second grade classes in the East St. Louis Public Schools. Comparative scores and grade levels for each of the groups is presented below.

Table 4

COMPARATIVE GATES-MacGINITIE READING TEST SCORES
AND GRADE LEVEL

	VOCABULARY		COMPREHENSION	
	SS	Grade Level	SS	Grade Level
X-1	48	2.6	47	2.6
X-2	46	2.5	46	2.5
C-1	47	2.6	46	2.5
C-3	50	2.9	51	3.1

By the end of the second grade there is little difference in test performance between any of the low income groups. Only the middle income children scored above their grade level. All other groups scored two to three months below grade level.

The Phase I children who were repeating first grade also received the Gates Reading Test. The scores obtained on the first grade test by these retainees are presented below.

Table 5

GATES READING TEST SCORES FOR PHASE I RETAINEES

	VOCABULARY		COMPREHENSION	
	SS	Grade Level	SS	Grade Level
X-1	44	1.7	45	1.6
X-2	45	1.7	48	1.7
C-1,2	42	1.6	43	1.6
C-3	43	1.6	47	1.7

After repeating the first grade all groups continued to score below grade level, although approximately half of the individual children scored at or above grade level and are prepared for second grade. The other half still scored considerably below grade level, but will, nevertheless, enter second grade next fall.

Grades and Promotion Record

School grades were obtained at the end of the year for all Phase I children. Grades of the children repeating first grade are reported separately. The letter grades assigned by the teachers were converted to numbers as follows:

4 - (E)xceptional Progress

3 - (A)cceptable Progress

2 - (I)mprovement Needed

1 - (F)ailure

Table 6

COMPARATIVE MEAN FINAL GRADES

	ARITHMETIC		READING		WRITING	
2nd Grade	1st Grade	2nd Grade	1st Grade	2nd Grade	1st Grade	2nd Grade
X-1	2.4	2.9	2.4	2.9	2.6	3.1
X-2	2.4	2.8	2.5	2.8	2.7	2.8
C-1, 2	2.3	2.5	2.3	2.5	2.3	2.8
C-3	2.8	3.1	2.9	3.1	2.9	3.0
1st Grade Retainees						
X-1	2.4		2.6		2.9	
X-2	2.8		2.8		2.8	
C-1, 2	2.6		2.4		2.6	
C-3	2.8		3.0		3.0	

In each case the children received higher average grades at the end of the second grade than they did at the end of first grade. The Preschool children made the greatest gains. Again, the low income children with no preschool experience ranked lowest.

The school policy of retaining children in the first grade rather than in later primary grades can be demonstrated. All the children who repeated first grade were promoted. The retention rate of second grade study children was much lower than the first grade rate.

Table 7

COMPARATIVE RETENTION RECORD OF STUDY CHILDREN

	First Grade % Retained	Second Grade % Retained
X-1	28.6	6.9
X-2	31.4	8.2
C-1, 2	37.1	11.5
C-3	14.8	3.6

Again, the low income children without preschool experience were more likely to be retained. While it does seem evident that preschool or kindergarten programs can enhance a child's school performance, it would be unrealistic to attribute this difference in test performance, grades and retention rate entirely to the preschool experience. There is some evidence to indicate that parents who enroll their children in Head Start programs are more often those who hold middle class values and goals. Thus, their children might tend to be more motivated toward school success than children from other low income or welfare families.

EXPERIMENTAL GROUP I
EXAMINATION OF SOME CENTER EXPERIENCE VARIABLES

One of the stated objectives of the Preschool Readiness evaluation was to determine the combination of age at intervention and treatment intensity most effective in terms of child's school readiness and achievement. Another was to assess the effect of parent participation on child's academic achievement, as measured by school records and certain objective test scores.

Parent Participation

In an attempt to determine the effect of parent participation on child's achievement, the center staff was asked to rate parent participation on a four point scale. Each parent was given a rating by the Head Teacher, the Teacher Aide and the Family Worker. The staff was asked to assign a number (1-2-3-4) to each parent.

1 represented no parent participation
2 represented poor parent participation
3 represented fair parent participation
4 represented good parent participation

Consideration was given to attendance at parent meetings, general interest shown in the program, and volunteer work both in and out of the center. Ratings given the parents by each of the three center staff members were surprisingly unanimous. Twenty percent of the parents did not participate at all in the program, and thirty percent were rated as good. Half of the parents received only poor to fair ratings.

Examination of parent participation and IQ of the child seemed to indicate that the role of the parent in child's achievement begins long before the child enters the center program and will, doubtless, continue long after the child leaves the program. This role may be conducive to learning, or it may be deleterious. For example, a comparison of pre IQ scores of the children whose parents were later rated on degree of participation suggests that the effects were measurable prior to participation. It seems probable that it is the parent, and not the participation, that has an effect on child's achievement.

Table 8

COMPARATIVE PPVT SCORES BY DEGREE OF PARENT PARTICIPATION

Participation	Center PPVT	1st Grade PPVT	2nd Grade PPVT
None	67.8	78.5	83.9
Poor	76.8	91.5*	87.4
Fair	80.3*	89.7*	95.6**
Good	84.7**	92.7**	92.2*

* $p < .05$ ** $p < .01$

As the table above indicates, there is a significant difference in pre IQ score between children whose parents were rated as poor participants or did not participate at all, and those whose parents were rated as 'fair' or 'good.' On the first grade test, children whose parents did not participate at all scored significantly lower than children whose parents did participate, if only minimally. Children of parents who were rated 'fair' participants continued to make gains, as did children of non-participating parents. At each succeeding period of time the range of the means diminishes. Only the children of parents rated 'fair' continued to make gains at the same rate.

Again, when the scores on the Metropolitan Readiness Test were analyzed, it was apparent that the children of parents who did not participate at all in the center program scored significantly lower than children whose parents did participate, even if the degree of participation and interest was rated as 'poor'. However, except for the children of non-participants, no significant difference was found between mean MRT scores of the other children.

On the Metropolitan Achievement Test at the end of the first grade, the children of non-participating parents scored much lower than children of parents who evidenced some interest in the program. At the end of the second grade, children of non-participating parents did as well on the Gates-MacGinitie Reading Test as children of participating parents. Parent participation or lack of it, however, had no measurable effect on the personal or social adjustment of the child.

Effect of Schedule and Age at Intervention

The original design for the center program varied classes by age groups and schedule within each center. Phase I children had attended preschool on either a 2 or 4 day schedule.

Unfortunately, the assignment of children to a two or four day schedule was not done randomly. Selection was usually made by the teacher and teacher aide. Analysis of the progress made by children attending on different schedules revealed that there were unforseen factors involved in selection. There was, for example, a significant difference ($p < .01$) in pre IQ of children assigned to a two or four day schedule, although the post test scores were not significantly different.

It was felt that in many cases selection to the four day schedule was due to parental pressure. The child of the verbal, aggressive parent was more likely to be selected for the four day schedule. This lack of random assignment obscures any real evaluation of the effectiveness of differing schedule assignment.

Table 9

COMPARATIVE PPVT AND MRT TEST SCORES BY CENTER SCHEDULE

	Center PPVT	1st Grade PPVT	MRT	2nd Grade PPVT
2 day schedule	74.3	87.3	42.1	89.8
4 day schedule	87.5	92.3	51.6*	92.0

* $p < .05$

While there was no significant difference in PPVT scores after center intervention, the children on the 4 day schedule did score significantly higher on the Metropolitan Readiness Test. At the end of the first grade the children on four day schedule continued to maintain their progress and scored higher than the children on two day schedule on each of the Metropolitan Achievement sub-tests. However, only the difference on the arithmetic concepts and skills sub-test was significant.

There is some evidence, too, that the child with a very low initial PPVT score profited more from attending a four day schedule, and the child with a pre IQ in or near the average range profited more from attendance on a two day schedule. This is somewhat dependent on the length of time in the center program. There is, of course, some reason to believe that a flexible curriculum, geared to the progress of the individual child, would effect continued growth for the disadvantaged child. A discussion of PPVT scores and growth curve over time is presented on page 50.

A comparison of test scores of children who entered the center program between the age of 3½ and 5, and those who entered after age 5 shows no appreciable difference in California Test of Personality scores, Metropolitan Readiness Test scores, Metropolitan Achievement Test scores, or in subsequent PPVT scores. The average pre IQ for each age group was 78.

It appears that IQ gains are largely a function of pre IQ and are only slightly affected by other variables.

Table 10 presents the observed gain pattern for the various PPVT IQ ranges.

Table 10

MEAN PPVT SCORES BY PRE IQ RANGE

Pre PPVT	Center	First Grade	Second Grade
Under 75	59.8	80.5	84.8
75-89	80.9	94.9	90.5
90-109	97.0	97.7	96.9
110 and over	119.1	105.9	105.7

Equal exposure to a preschool program and to the public school appears to narrow the IQ range of the sample children, although the regression phenomenon, undoubtedly, plays an indeterminate role.

Income Level and IQ

As IQ gain appears to be related to pre IQ level, so pre IQ level appears to be related to poverty level. Test scores of the Preschool children tended to reflect the degree of deprivation. Thus, children from families receiving AFDC scored lower than other low income children. Almost 28 perdent of X-1 children were from families somewhat above the Government Index of Poverty, and over 50 percent were from families receiving Aid to Dependent Children.

Comparative PPVT and MRT scores by the various income levels illustrate the relationship between degree of deprivation and test scores.

Table 11

MEAN PPVT, MRT AND MAT SCORES BY POVERTY LEVEL

	Center PPVT	1st Grade PPVT	2nd Grade PPVT	MRT	METROPOLITAN ACHIEVE.TEST Word Know.	Word Disc.	Read	Arith
AFDC	73.1	85.0	88.3	41.9	42.6	42.3	38.6	38.7
Poverty	78.1	90.1	87.9	47.2	46.7	47.7	41.3	42.5
Non-Poverty	90.2*	96.4*	98.5*	50.1*	50.6*	52.1*	45.1	43.8

*$p < .05$

The greatest gains were made by the most deprived children; these gains, however, were not sufficient to offset the substantially lower pre IQ level. The children from AFDC families and the non-poverty children continued to make gains in the first grade, but the children from poverty level families did not. Interestingly, nearly every test score and sub-scale score consistently reflects the child's deprivation level, although not all differences are statistically significant.

No other variable examined was as relevant to test performance as income level. The non-poverty children were not middle class, but families whose income was slightly above the Government Index of Poverty Level.

While there was no difference in personal or social adjustment while the children were in the center program, or when they began first grade, by the time the children were in the second grade children from AFDC families scored significantly lower on social adjustment than the other sample children. Both the ADC and non-poverty children scored significantly lower than other low income children on personal adjustment.

Table 12

CTP PERSONAL AND SOCIAL ADJUSTMENT SCORES BY POVERTY LEVEL

Poverty	CTP I		CTP II		CTP III	
Level	Personal	Social	Personal	Social	Personal	Social
1	23.0	25.4	22.2	25.5	21.4	27.6
2	23.3	24.0	23.2	24.4	24.3*	29.9*
3	22.1	25.1	21.3	25.1	21.4	30.0*

*p < .05

PHASE II: COMPARATIVE TEST RESULTS

Phase II consists of children who entered first grade in September, 1968. The experimental and control groups and number of children tested in each are as follows:

Group	Number Tested
Preschool Children (Experimental Group I)	120
Summer Head Start (Experimental Group II)	60
Low Income Without Preschool Experience (Control Group I)	48
Middle Income Children (Control Group III)	55
Total	283

The PPVT was administered to the Preschool children in the Readiness Centers. All sample children were given the PPVT and the MRT upon entry into public school.

Peabody Picture Vocabulary Test

It was expected that the X-1 children would score significantly higher on the Peabody Picture Vocabulary Test than the other experimental and control children.

Comparative mean IQ scores for the children tested on entry into first grade are presented in Table 13. The t test was used as the test of significance of difference between group means.

Table 13

COMPARATIVE MEAN PPVT SCORES OF PHASE II STUDY CHILDREN

Group	Mean	Level of Significance
X-1	87.5	
X-2	80.0	$p < .05$
C-1	73.3	$p < .001$
C-3	93.0	

The children experiencing the Preschool Readiness Centers program scored significantly higher on the PPVT than summer Head Start children (X-2) or low income children with no preschool experience (C-1). There was no statistically significant difference between the X-1 and C-3 children, although the C-3 children scored somewhat higher than the children of Experimental Group I.

The mean IQ score for X-1 children actually represents a post-test score. The initial PPVT was administered shortly after the children entered the center program. The mean pre-intervention IQ score for these children was 73.2.

The center test scores of Phase II Preschool children was somewhat lower than that of Phase I children, although they made comparable gains. This difference can, in part, be accounted for by the greater proportion of poverty children in Phase II. Test scores tend to reflect the degree of deprivation. Thus, children from families receiving AFDC score lower than other low income children. Almost 28 percent of Phase I children were from families somewhat above the Government Index of Poverty, and over 50 percent were from families receiving AFDC. Only 13 percent of Phase II children were from families above the poverty level and, again, about half were from AFDC families.

The Metropolitan Readiness Test

The Metropolitan Readiness Test was given to all study children within a month after the schools opened in the fall.

Comparing results with national norms the study children, as a whole, scored much lower. The East St. Louis sample children, however, did not have the benefit of kindergarten. The East St. Louis School District has opened a number of kindergarten classes in the past year, and hope to double the number of classes by September, 1969. Until city-wide kindergartens are opened, readiness test scores are not necessarily indicative of the child's future performance. It is more helpful to interpret scores based on local experience.

It had been expected that the X-1 children would score as high as the C-3, middle income children attending these same schools. This expectation was not confirmed. The table below presents comparative mean sub-scale scores on the MRT for the several groups.

Table 14

COMPARATIVE MEAN MRT SCORES FOR PHASE II CHILDREN

	Meaning	Listening	Matching	Alpha	Numbers	Copying	Total Score	Percentile
X-1	5.9	8.2	5.2	6.0	8.6	3.9	37.8	20
X-2	6.1	7.3	4.3	6.0	6.9	3.6	34.2	15
C-1	5.9	8.3	4.7	4.7	7.5	3.2	34.2	15
C-3	7.4	9.7	7.6	8.6	10.0	6.4	50.1	40

The middle income sample children scored significantly ($p < .01$) higher on the total MRT and on each of the subtests than any of the other groups. The Preschool children scored significantly higher than summer Head Start children ($p < .05$) on Listening and Number Concepts. They scored significantly higher than the low income children on Alphabet. The MRT total for the X-1 children was not significantly higher than that of the other low income groups.

Teacher Pupil Evaluation

About six weeks after school started last fall the teachers were asked to rate child's learning ability and readiness for school. They were also asked to check a series of characteristics they felt applied to the particular child. (See Appendix C.)

The teacher ratings were compared with the child's test scores. In rating school readiness the teachers rated the Preschool (X-1) children and the summer Head Start (X-2) children much higher than their test performance on the Metropolitan Readiness Test would seem to warrant. The children in the experimental groups were familiar with the school experience, and were used to following directions. Teachers are likely to consider this behavior as readiness for school. Low income children with no preschool experience were rated very low in school readiness by the teachers, and their test results were also low. Middle income boys were rated highest on school readiness, and also scored relatively high on the Metropolitan Readiness Test. Girls from summer Head Start were rated as high on school readiness as the middle income girls, and both were rated higher than the other low income groups. The actual readiness test scores are presented below for each of the groups.

Table 15

METROPOLITAN READINESS TEST SCORES BY SEX

X-1		X-2		C-1		C-3	
Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
39	37	31	38	33	36	49	50

Teacher expectations of how well the child would do in first grade followed the same pattern. High ratings were given to C-3 boys, X-2 girls and X-1 boys. Middle income girls were also rated relatively high. The table below presents the teachers' ratings at the beginning of the school year.

Table 16

TEACHER EXPECTATION OF CHILD'S ACADEMIC PERFORMANCE
AT BEGINNING OF FIRST GRADE EXPRESSED IN PERCENTS

	X-1		X-2		C-1		C-3	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below Avg.	30	42	63	29	68	56	27	37
Above Avg.	70	58	37	71	32	44	73	63

It can be seen that teachers, even at the beginning of the school year, had low expectations for the low income children with no preschool experience. They also had low expectations for the boys from summer Head Start, and high expectations for the girls from summer Head Start.

At the end of the school year the children were rated again. The table below presents the teachers' ratings at the end of the school year.

Table 17

TEACHER EXPECTATION OF CHILD'S ACADEMIC PERFORMANCE
AT END OF FIRST GRADE EXPRESSED IN PERCENTS

	X-1		X-2		C-1		C-3	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below Avg.	39	33	39	17	61	29	29	20
Above Avg.	61	67	61	83	39	71	71	80

Only the X-1 and C-3 boys were rated lower on the post evaluation. The highest rating was given to girls from summer Head Start (X-2). They were rated slightly higher than the middle income (C-3) girls. The greatest gains were made by X-2 boys and C-1 girls. In fact, teacher expectation was higher for C-1 girls than for the Preschool (X-1) girls or boys. In each sample group teacher expectation was higher for girls than for boys by the end of the school year. The greatest difference between boys and girls was in the low income control group where 71 percent of the girls and only 39 percent of the boys were expected to do average work.

Learning ability, as rated by the teachers, showed a somewhat different pattern. Middle income girls were rated much higher on ability than any of the other groups. There was also the largest difference between teacher expectation and teacher ability rating in this group. A large difference was also observed for X-1 boys, but the difference was reversed. The teacher expectation for school success was high, but ability was rated relatively low. The table below presents the ability ratings given by the teacher at the beginning of first grade.

Table 18

ABILITY RATING AT BEGINNING OF SCHOOL YEAR
EXPRESSED IN PERCENTS

	X-1		X-2		C-1		C-3	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below Avg.	47	40	60	29	59	50	28	10
Average or above	53	60	40	71	41	50	72	90

Girls were rated higher in ability in each of the groups, although only the X-2 girls and the C-1 girls were expected to do better than the boys.

At the end of the school year girls were again rated higher on ability in their respective group. All groups were rated higher in ability at the end of the school year except for C-1 boys. Table 19 presents ability ratings for each of the groups.

Table 19

ABILITY RATINGS AT END OF SCHOOL YEAR EXPRESSED IN PERCENTS

	X-1		X-2		C-1		C-3	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Below Average	30	30	43	24	61	35	26	10
Average or Above	70	70	57	76	39	65	74	90

The discrepancy in ratings between boys and girls decreased for the X-2 children, but increased for the C-1 children from pre to post evaluation. It appears that girls adjust more easily to the learning situation, even if ill-prepared on entering school. On the early teacher evaluation boys received a higher school readiness rating in every group, except the low income children with no preschool experience. It is well known that in early school years girls outperform boys. While the girls scored slightly better on the MRT than the boys in their respective groups, with the exception of Experimental Group I, the teachers rated them lower at the beginning of the school year.

In addition to the rating the evaluation form also contained a list of eighteen characteristics. The teacher was asked to check those she felt applied to the child being rated. Table 20 presents the percentage of children in each group who were described by the particular characteristic or trait.

Table 20

PERCENT OF SAMPLE CHILDREN DESCRIBED BY CHARACTERISTIC

	Preschool		Summer Head Start		Low Income		Middle Income	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Withdrawn and shy	24	26	18	27	63	27	26	18
*Attentive	51	36	79	40	50	27	37	50
*Fast learner	21	15	21	3	19	9	21	45
Careless in appearance	5	17	-	10	6	9	16	5
Dull and depressed	2	15	4	-	19	13	5	5
Over-aggressive	6	11	-	3	-	-	5	5
*Outgoing and friendly	47	42	43	37	25	50	37	59
*Eager to learn	58	49	71	47	25	45	53	50
*Helpful	50	56	68	50	63	59	47	41
*Bright and cheerful	45	39	36	33	31	41	58	64
*Liked by peers	42	64	96	77	75	59	84	82
*Good appearance	84	66	100	83	69	59	79	82
Short attention span	24	47	7	63	56	55	42	36
Slow learner	23	36	25	47	50	59	11	23
Inattentive	16	32	7	33	31	32	16	18
Disliked by peers	-	-	-	3	6	-	-	5
Disruptive	5	15	-	10	6	-	5	9
Hyperactive	3	11	-	-	-	5	5	9
N =	62	53	28	30	16	22	19	22

*Positive characteristics.

It is interesting to note that the Preschool boys received no high positive ratings and five high negative ratings; (that is, a higher proportion of X-1 boys were thus described.) A larger percentage of X-1 boys were described as careless in appearance, dull and depressed, overaggressive, disruptive and hyperactive. The X-1 girls received two high positive ratings, fast learner and outgoing and friendly. An almost identical percentage of girls in each group were characterized as fast learners. Preschool girls were less often liked by their peers and more likely than the other girls to be described as overaggressive. The proportion of middle income boys characterized as fast learners was much higher than that for the other groups of boys.

The girls who attended summer Head Start were rated highest on six positive characteristics and lowest on seven negative characteristics. Summer Head Start boys were rated highest on only one positive characteristic, and on three negative characteristics. They were also rated lowest on three positive characteristics.

Low income children with no preschool experience were rated highest on seven negative characteristics and rated lowest on five positive characteristics. At the beginning of the school year the low income boys were rated higher than the girls. Middle income girls were rated lowest on four positive characteristics, and highest on two negative characteristics. Middle income boys had the highest ratings among all the groups of boys.

The best overall rating was given to girls who attended summer Head Start, and to middle income boys. The lowest ratings were given to girls from low income families who had no preschool experience. Low income children as a whole were rated high on several negative characteristics that are relevant to school success or failure. Over half were described as having a short attention span and as slow learners. One-third were described as inattentive.

If these are in fact fair descriptions of the low income sample children, it is not surprising that so many fail in the public school. If these descriptions also reflect teacher expectation the child's chance for success is even further diminished.

By the end of the school year the description of the children had changed, in some instances dramatically. The table below shows the percentage of children in each group who were described by the particular characteristic or trait at the end of the school year. (*Positive characteristics.)

Table 21

PERCENT OF SAMPLE CHILDREN DESCRIBED BY CHARACTERISTIC

	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Withdrawn and shy	22	13	25	36	25	41	16	9
*Attentive	43	60	57	72	25	47	55	57
*Fast learner	18	22	25	28	14	18	39	38
Careless in appearance	22	12	11	-	25	12	13	9
Dull and depressed	16	2	4	4	4	24	3	-
Over-aggressive	8	8	-	4	4	-	10	14
*Outgoing and friendly	47	38	46	56	32	24	61	62
*Eager to learn	65	73	54	56	36	41	55	67
*Helpful	57	68	68	56	43	47	58	76
*Bright and cheerful	49	50	39	48	39	29	58	52
*Liked by peers	67	73	79	76	57	65	87	86
*Good appearance	63	67	79	84	43	65	77	90
Short attention span	41	13	29	8	50	41	19	14
Slow learner	35	27	32	20	36	23	16	5
Inattentive	27	8	18	12	36	18	32	5
Disliked by peers	2	-	4	-	-	-	-	5
Disruptive	23	8	11	-	7	6	7	5
Hyperactive	14	2	-	-	11	-	7	9
N =	52	60	28	25	28	17	31	21

Unexpectedly, more X-2 boys and girls, and C-1 girls were described as withdrawn and shy on the post test. In each instance girls were rated as more attentive on the post evaluation, although on the pre-rating only middle income girls were described as attentive.

In each group boys were more often described as fast learners in the early evaluation; on the post rating girls were more likely to be rated as fast learners. The X-1 boys and C-1 girls were more often described as dull and depressed on the post evaluation.

Fourteen percent of the C-3 girls and 10 percent of C-3 boys were characterized as overaggressive. As a whole, the C-3 boys and girls were described by more positive characteristics and fewer negative characteristics. The Preschool boys were more often described by negative characteristics, but they also had more positive characteristics assigned to them than either the boys or girls of C-1 group.

Preschool boys were more likely to be described as disruptive and hyperactive. Twenty-three percent were characterized as disruptive, and 14 percent as hyperactive. This may reflect the difficulty that the boy has in adjusting to the more rigid classroom environment after a period of time in an unstructured, flexible preschool situation. Although boys, as a whole, were rated higher than girls on entry into first grade, by the end of the school year the girls had surpassed the boys, both in teacher evaluation and in test performance.

Teacher ratings are often demonstrably biased and generally provide a poor estimation of the child's ability. Whether the teacher ratings described above are due to bias, or lack of perception, is not known. Ratings are probably a combination of misperception, bias and child's behavior and ability.

The Gates-MacGinitie Reading Test

It was decided not to give the Metropolitan Achievement Test this year because the School District administers the Gates-MacGinitie Reading Test in the primary grades every year. The MAT seemed a duplication of effort, as well as an unwarranted hardship on the teachers.

The comparability of the Gates Reading Test and the Metropolitan Achievement Test is presented in the discussion of Phase I. The table below presents the grade level and standard score achieved on the two sub-tests of the Gates-MacGinitie Reading Test.

Table 22

STANDARD SCORE AND GRADE LEVEL
IN GATES-MacGINITIE READING TEST

	VOCABULARY				COMPREHENSION			
	Boys		Girls		Boys		Girls	
	Standard Score	Grade Level	Standard Score	Grade Level	Standard Score	Grade Level	Standard Score	Grade Level
X-1	44	1.7	46	1.7	45	1.6	50	1.9
X-2	44	1.7	48	1.9	46	1.6	48	1.7
C-1	44	1.7	42	1.6	45	1.6	43	1.6
C-3	43	1.6	45	1.7	46	1.6	48	1.7

It can be seen that there is little difference in vocabulary scores for the boys in any of the groups. Surprisingly, the middle income sample boys did not do as well as the boys in the other groups. This can, in part, be attributed to the fact that some of the X-1 and C-3 sample children attended school in District #187. Almost half of the sample children and 20 percent of X-1 children attended school in District #187. These children did not take the Gates-MacGinitie Reading Test, and are not included in the figures above. Their inclusion would have raised the average score of both groups. This may be demonstrated by comparing scores achieved on the California Achievement Test, which District #187 administers.

On the vocabulary sub-test the X-1 children scored at the 64th percentile compared with the 31st percentile of X-1 children in the East St. Louis School District #189. The C-3 sample children scored at the 58th percentile compared with the 27th for C-3 children in District #189.

Similarly, in the Comprehension sub-test X-1 children scored at the 47th percentile in District #187, and at the 38th percentile in District #189. C-3 children scored at the 41st percentile as compared to the 34th percentile. There was, however, less difference in the MRT scores at the beginning of the year. The X-1 children in District #187 scored at the 27th percentile on the MRT; those in District #189 scored at the 20th percentile. The middle income sample children in District #187 scored at the 40th percentile, and those in District #189 scored at the 36th percentile. The exclusion of sample children from District #187 would similarly affect the Gates scores for X-1 and C-3 girls.

Girls in each of the sample groups, with the exception of C-1, scored higher than the boys on both the Gates sub-tests. Thus, the test results for the most part reflect the higher teacher ratings given to girls at the end of the school year. The exception is the great discrepancy between teacher ratings and test scores of the C-1 children. The C-1 girls scored slightly lower than the boys on both of the sub-tests. The teachers, however, rated the girls much higher on both expectation for success and on ability. Over 70 percent of the girls rated at the end of the school year were expected to do average work or better, compared to 39 percent of the boys. Teacher rating of ability followed the same pattern. Sixty-five percent of girls were rated as average or above on ability; only 39 percent of C-1 boys were so rated. It appears that teachers not only expect less of boys but feel they have less ability than girls in spite of the fact that there is little difference in their test scores. Boys are more often disruptive or hyperactive, characteristics not valued highly in the public school.

The Follow Through Program

Almost half of the 120 Preschool children who entered first grade in September, 1969 were placed in the Follow Through Program administered by the East St. Louis Public Schools. This program was initiated last fall and used the Bereiter-Engelmann approach. Two hundred and fifty children took part in the program. Half of these were from the Preschool Centers (Head Start) or the Kindergarten program; the other half were children from Summer Head Start and those with no preschool experience. There were 10 classes of 25 children; each teacher had an aide.

Under these favorable conditions a higher level of class achievement could be expected, regardless of the teaching approach used. This expected achievement was not evident in the Gates MacGinitie Reading Test scores. The University of Illinois has collected other test data on the Follow Through children, but this data is not yet available. The table below presents the Gates sub-test scores for Follow Through and non-Follow Through children.

Table 23

MEAN GATES STANDARD SCORES AND GRADE LEVEL FOR FOLLOW THROUGH AND NON-FOLLOW THROUGH STUDY CHILDREN

	VOCABULARY				COMPREHENSION			
	Follow Through		Non-Follow Through		Follow Through		Non-Follow Through	
	Standard Score	Grade Level	Standard Score	Grade Level	Standard Score	Grade Level	Standard Score	Grade Level
X-1	45	1.7	46	1.8	47	1.7	46	1.6
X-2	46	1.8	46	1.8	44	1.6	49	1.8
C-1			43	1.7			45	1.6
C-3			44	1.7			46	1.6

It can be seen that there is no consistent difference in test scores or grade level between Follow Through and non-Follow Through children. However, a great difference was found between schools. There were five schools with Follow Through classes; two of these had three classes, two schools had only one class; the other school had two classes. The Standard scores on the Vocabulary sub-test ranged from a low of 18 in one Follow Through school to a high of 39 in another. Standard scores of the Comprehension section of the Gates MacGinitie Reading Test ranged from a low of 11 to a high of 24 in the same schools. Moreover, these two schools are in the same general area and serve the same kind of neighborhood. The school with low Follow Through achievement also had low achievement in the other classes; the school with high Follow Through class achievement had high achievement in non-Follow Through classes.

It was evident that there was some degree of competition between Follow Through teachers and the other first grade teachers. This competition may account for the equal achievement of first grade children within a particular school. In spite of the fact that the schools did not open until late September, Phase II children, as a whole, scored somewhat higher on the Gates Reading Test than Phase I children. They also received better grades, and had a lower retention rate.

The University of Illinois staff from the Bereiter-Engelmann program maintain that the effect of the new curriculum will accelerate, and that after second or third grade the children in the program will greatly outperform their other classmates.

There is some indication that this may occur for reasons not necessarily related to the new curriculum. First, the teachers will remain with their class in the second grade. On the basis of teacher evaluation it is evident that the Follow Through teachers, while having a more or less realistic view of the child's ability, feel that the child will do well in school. In describing the Follow Through child, positive characteristics were more often chosen. Teachers describing the Follow Through child used 13 percent of the possible negative characteristics and 61 percent of the possible positive characteristics. For non-Follow Through children the corresponding percentages were 15 and 45. Over eighty percent of the Follow Through children were described as eager to learn, compared with 56 percent of the other sample children. Twenty-one percent of Follow Through children were described as having a short attention span, compared with 31 percent of non-Follow Through children. Again, 30 percent of Follow Through children were characterized as fast learners compared with 9 percent of the other study children. Thus, it is apparent that the teachers have positive feelings about the children in the program, and high expectations for their success. This attitude alone can enhance the child's chances of successful performance in the public schools.

Grades and Promotion Record

School grades were obtained at the end of the school year for all sample children. The letter grades assigned were converted to numbers, as discussed previously. The table below presents the final grades for each of the experimental and control groups.

Table 24

COMPARATIVE MEAN FINAL GRADES BY SEX

	ARITHMETIC			READING			WRITING		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
X-1	2.7	2.9	2.8	2.7	2.9	2.8	2.6	3.1	2.9
X-2	2.5	3.0	2.8	2.9	3.1	3.0	2.6	3.0	2.9
C-1	2.2	2.2	2.2	2.1	2.4	2.2	2.2	2.5	2.3
C-3	2.8	3.0	2.9	2.9	3.1	3.0	2.9	3.2	3.0

It can be seen that girls were consistently graded higher than boys. They were also rated higher by the teacher and scored somewhat higher on the Gates-MacGinitie Reading Test.

Phase II children in all groups, except C-1, were graded higher than the corresponding Phase I children. Phase II children, as a whole, scored somewhat higher on the Gates Reading Test than Phase I children.

There was also a dramatic change in the promotion rate between Phase I and Phase II. Part of this change can be attributed to the Follow Through Program, which included about half of the X-1 and one-fourth of the X-2 children. All children in the program were promoted. However, even with the Follow Through children excluded, the retention rate of Phase II sample children was significantly lower than that of Phase I.

Table 25

COMPARATIVE RETENTION RATE OF
PHASE I AND PHASE II STUDY CHILDREN

	Phase I	Phase II	Non-Follow Through
X-1	28.6	5.1	10.0
X-2	31.4	8.2	13.8
C-1	37.1	28.6	28.6
C-3	14.8	12.0	12.0

If this dramatic change reflects a change in school policy, or if the children of Phase II actually performed better in school, is open to question.

There is some reason to believe that the Phase II children actually did perform somewhat better than Phase I children. Test scores and grades, as well as the retention rate, tend to confirm this in spite of the fact that all groups did less well on the Metropolitan Readiness Test. As mentioned in the discussion of the Follow Through Program, teachers of children not in the program may have felt a certain degree of competition with Follow Through teachers. At any rate, children in the Follow Through classes did no better than those in the regular classroom.

EXPERIMENTAL GROUP II
EXAMINATION OF SOME CENTER EXPERIENCE VARIABLES

In Phase II parent participation was evaluated in several ways. As in Phase I, parents of X-1 children were rated on degree of parent participation. In addition, parents were interviewed to determine how they felt about their participation in the program (Appendix D). From volunteer records the type of volunteer activity and participation was tabulated.

Parent Participation and Test Scores

As suggested previously, the degree of parent participation in the Preschool program, or any other program, is dependent on several factors. One, of course, is the type of parent and, another, is the effort made by the staff to involve parents and encourage participation.

Some parents are verbal and aggressive; others are withdrawn and fearful of contact with strangers. The child of verbal, active parents has been exposed to more experiences than the child of non-verbal, passive parents. The parent who does not participate in the center program does not, for the most part, participate in any activity or function outside the home. This experiential deficit of the parent is reflected in the greatly depressed IQ score of the child.

The table below presents the pre and post PPVT test scores of the children of participating and non-participating parents.

Table 26

COMPARATIVE PRE-POST PPVT AND MRT SCORES
BY DEGREE OF PARENT PARTICIPATION

Participation	Average Pre PPVT	Average Post PPVT	MRT
None	67.8	85.9	31.8
Poor	69.7	86.5	35.9
Fair	74.2	90.2	41.7
Good	80.6	88.9	44.3

While all pre PPVT scores are depressed, the child whose parents were rated poor participants, and the child whose parents did not participate at all, scored significantly lower on the pre PPVT than the child whose parents were rated as good participants.

On the post test, however, there was no significant difference in mean PPVT scores. Reflecting the pre PPVT scores, the Metropolitan Readiness scores of children of poor and non-participating parents were also significantly lower than those of children whose parents were described as good participants.

In addition to other forms of participation, an examination was made of the parents volunteer work. It was felt that the type of volunteer work might reflect parents experience and competence. However, the type of volunteer work done by the center parents may have been chosen by them or may have simply been assigned by the teacher. Thus, whether a parent worked with children, assisted on field trips, or baked for a party, was not a factor in their child's test scores, nor was attendance or non-attendance at parent meetings a factor in the child's IQ gain or MRT test score.

This difference in test performance by children of participating and non-participating parents was maintained throughout the school year. On the Gates-MacGinitie Reading Test, children of participating parents scored higher than the children of non-participating parents. Table 27 presents the mean standard score for each of the levels of participation.

Table 27

MEAN STANDARD SCORE ON GATES MacGINITIE READING TEST

Degree of Parent Participation	Vocabulary	Comprehension
None	45	43
Poor	43	45
Fair	47	50
Good	50	50

Income Level and IQ

Phase II children present a pattern somewhat similar to Phase I children, although the pre IQ level was lower for all income levels and substantially lower for the non-poverty sample children. There was no significant difference in pre or post PPVT scores of Phase II children by poverty level. Again, the AFDC children made the greatest gains, even surpassing the children from poverty families. The Phase II non-poverty children initially scored much lower than Phase I non-poverty children, but they made greater gains. As in Phase I the non-poverty children scored significantly higher on the Metropolitan Readiness Test.

The table below presents mean PPVT and MRT test scores for each of the poverty levels.

Table 28

MEAN PPVT AND MRT SCORES BY POVERTY LEVEL - PHASE II

	PPVT		
	Pre	Post	MRT
AFDC	72.8	87.9	35.0
Poverty	73.6	83.5	38.3
Non-Poverty	79.8	90.7	50.3

The non-poverty children of Phase II scored essentially the same as Phase I children on the MRT. The AFDC and poverty children of Phase II scored considerably lower on the MRT than Phase I children, although there was little difference in their PPVT test scores.

In both Phase I and Phase II pre IQ tended to be more reflective of performance on the Metropolitan Readiness Test than the post IQ. Metropolitan Readiness Test scores were analyzed by pre IQ range. While those children who scored 90-109 on the pre PPVT scored somewhat higher than those who scored between 75-89 on the PPVT, the difference was not significant. Both groups scored significantly higher on the MRT than the children who scored below 75 on the PPVT. This was true, even when the mean post PPVT was in a higher range.

Effects of Schedule and Days Attended

In Phase I the effect of the number of days per week the child attended the center was obscured by the non-random assignment to two and four day schedules. The children attending on a four day schedule scored significantly higher on the pre PPVT test. In Phase II the difference in pre IQ was not as great, but it still approached significance. The post PPVT scores were not significantly different, nor were the scores on the Metropolitan Readiness Test.

The table below presents the mean PPVT and MRT scores for children attending a two day schedule, and those attending a four day schedule.

Table 29

COMPARATIVE PPVT SCORES BY SCHEDULE

Schedule	Pre PPVT	Post PPVT	MRT
Two Day	72.0	86.0	37.3
Four Day	79.1	91.8	39.8

In spite of the fact that the children on the four day schedule attended twice as many days as the children on the two day schedule, there was no appreciable difference in post PPVT or MRT scores. The average number of days attended by children on a two day schedule was 100; those on a four day schedule attended an average of 209 days. The children on the two day schedule made only expected gains, as did the children on the four day schedule. This was true of both Phase I and Phase II children. For the children with a pre IQ under 75, the four day schedule seemed to offer a very slight advantage.

Age at Intervention

The average age of Phase II children at entry into the center program was 57 months, an average of three months younger than Phase I children.

The table below presents mean PPVT and MRT scores by age at intervention.

Table 30

MEAN PPVT AND MRT SCORES BY AGE AT INTERVENTION

Age at Intervention	N	Center PPVT	First Grade PPVT	MRT	Average # Days in Center
47 Mo. and under	22	83.7	92.7	42	205
48-53	17	68.7	83.7	36	214
54-59	28	69.9	83.1	35	119
60-65	32	82.3	93.2	42	73
66 and over	21	59.8	81.1	34	60

The children who entered the center program prior to their fourth birthday scored higher on the Metropolitan Readiness Test than most of the other age groups; the children who entered at age 5 to 5½ scored equally high. These higher scores could be expected from their higher post PPVT. Nevertheless, allowing for 'gain expectations' based on pre IQ, none of the age groups made gains greater than expectation and none made gains less than expectation.

Preschool Experience and IQ Loss

There were 120 children from the Preschool program who entered public school in September 1968; all but one were black children from poverty neighborhoods. Only 14 percent of these children scored in the average and above (IQ score 90 and above) range on the pre test given soon after entry into the center program, and 44 percent scored in the average or above range on the post test. A further breakdown of pre IQ scores and percent of children making gains is presented below:

Table 31

PRE IQ SCORE AND PERCENT MAKING GAIN

Pre IQ Range	N	% Making Gain	Pre IQ Average	Post IQ Average
Average (90-109)	33	42	99.8	96.3
Below Average (75-89)	29	83	81.8	91.3
Below 75	58	91	55.0	83.5
Total	120	75	73.3	86.8

Numerous studies have reported that the child with a low initial IQ score can be expected to make greater gains from exposure to a preschool program than the child with an average, or near average, pre IQ score. This expectation was confirmed with the subjects of the study. Nevertheless, twenty-five precent of the sample children suffered an IQ loss; and 63 percent of these had scored in the average range on the pre test.

A preschool program cannot be expected to effect equal gains in all children, but it would seem that preschool attendance should not have an adverse effect on any child. For the most part, the children who experienced a loss came from the same deprived home, the same neighborhoods as the children who made gains.

Investigators at the Fels Research Institute analyzed changes in IQ among preschool children over a period of years. They report that twice as many boys as girls showed large increases in IQ. Girls were more likely to lose in IQ score and boys more likely to gain. In the present analysis of high-gain and low-gain children it was found that 50 percent of high-gain children and 40 percent of low-gain children were female. Whether or not this ratio will hold over a period of time is not known.

In an attempt to determine why some children made substantial IQ gains in the Preschool program and others failed to make gains, some pertinent characteristics of these two groups of children were examined.

One sample group consisted of thirty-five children who exceeded gain expectations by five IQ points or more. Expected gains, using Bereiter's[3] definition, are considered to be a gain approximately (within 2 IQ points) equal to one-half the difference between the pre IQ score and 100. The other sample group examined consisted of 29 children who failed to make gains, or who suffered an IQ loss.

A comparison of some of the variables is presented in the following table.

Table 32

CENTER EXPERIENCE AND TEST SCORES OF HIGH AND LOW-GAIN CHILDREN

	High-Gain	Low-Gain
Age at Entry (Months)	55.6	55.3
# Days Attended	126.7	124.3
Pre PPVT	73.3	90.9
Post PPVT	96.7	82.1
MRT	43.1	36.5

It can be noted that there is no appreciable difference in age at entry into the center program, or in number of days attended. The pre IQ of the children making high gains is very close to the average pre PPVT score of all Phase II Preschool children, and the post PPVT score is considerably higher than that of Phase II children as a whole. The higher MRT score is consistent with the corresponding post PPVT score. Metropolitan Readiness Test scores, however, are in the low normal range for both groups.

An examination of enrollment and social history records revealed that a somewhat greater proportion of the children who suffered an IQ loss were from families who were subsisting on welfare, and a somewhat smaller proportion were from non-poverty families.

The table below presents these comparisons.

Table 33

SAMPLE CHILDREN IN EACH OF THE VARIOUS POVERTY LEVELS EXPRESSED IN PERCENTAGES

	High Gain	Low Gain
AFDC	48.6	53.6
Poverty	34.3	35.7
Non-Poverty	17.1	10.7
N =	35	29

There was also a substantial difference in the proportion of intact families for the two groups. This difference, however, was not in the expected direction. Fifty percent of the children sustaining an IQ loss came from an intact family. Only 37 percent of high gain children came from intact families. The number of children per family was almost identical for both groups, an average of 5 children.

An examination was also made of parent participation in the center program as related to IQ gain. Only 44 percent of the parents of high-gain children were rated as 'fair' or 'good' on parent participation as opposed to 50 percent for low-gain children. The remaining parents were rated as 'poor' participants or 'none', no participation at all. Again, the high-gain group had a higher proportion of non-participation ratings. The average number of volunteer hours for parents of high-gain children was 19 hours; for parents of low-gain children the average number of volunteer hours served was 24.

A difference was also found in type of volunteer activity. Over 46 percent of parents of high-gain children devoted half or more of their volunteer time in activities involving the children. Only 28 percent of the parents of low-gain children spent their volunteer time in activities involving children. If this difference is due to choice, then it would appear that the parents of high-gain children feel more comfortable and have more assurance in their ability to handle children. This is, perhaps, demonstrated in parents' choice of punishment. Fifty percent of the parents of high-gain children used methods other than spanking. Eighty-five percent of low-gain parents indicated that spanking was the form of discipline most often used.

As teacher expectation plays a role in a child's school achievement, so parental expectation may similarly affect the child's achievement. Parents of sample children who made higher gains than expected were more likely to name a specific profession when asked 'What do you want your child to be?' Sixty-five percent named a specific profession (teacher, doctor, lawyer, etc.) as compared to 32 percent of parents of low-gain children.

Two factors which were found to distinguish between middle income children and low income and Preschool children of Phase I were educational level and their parents' place of birth. Parents of middle income children were more likely to have attained a higher educational level, and were likely to have been born in the East St. Louis area. Parents of low income sample children and the Preschool children had a lower level of education, and were more likely to have been born and raised in the South.

Similarly, the parents of children who made gains higher than expectation had more education and a greater proportion were born in East St. Louis. A comparison of educational attainment, and parents' place of birth is presented below.

Table 34

PARENTS EDUCATIONAL ATTAINMENT AND PLACE OF BIRTH
EXPRESSED IN PERCENTAGES

	High-Gain	Low-Gain
MOTHERS EDUCATION		
Less than High School Graduate	50	70
High School Graduate	50	30
FATHERS EDUCATION		
Less than High School Graduate	89	77
High School Graduate	11	23
MOTHERS PLACE OF BIRTH		
East St. Louis Area	67	33
South	33	67
FATHERS PLACE OF BIRTH		
East St. Louis Area	63	25
South	37	75

It can be seen that the educational level of the father has less pertinence to child's achivement than the educational level of the mother. In many cases, of course, the father is not in the home. Although the low-gain children had a higher average pre IQ, the score was nonetheless in the low average range. Very low or very high scores tend to be spurious, but there were no extremely high pre IQ scores in either sample group. The range of PPVT scores in the low-gain group was 61 to 116. The range of scores in the high-gain group was 53 to 99.

Of the variables examined only parents' level of education and place of birth appeared to differentiate between the high-gain and low-gain sample children. Perhaps, as Friedlander[4] suggests, language proficiency of parents and not socio-economic level is the significant factor in the child's performance.

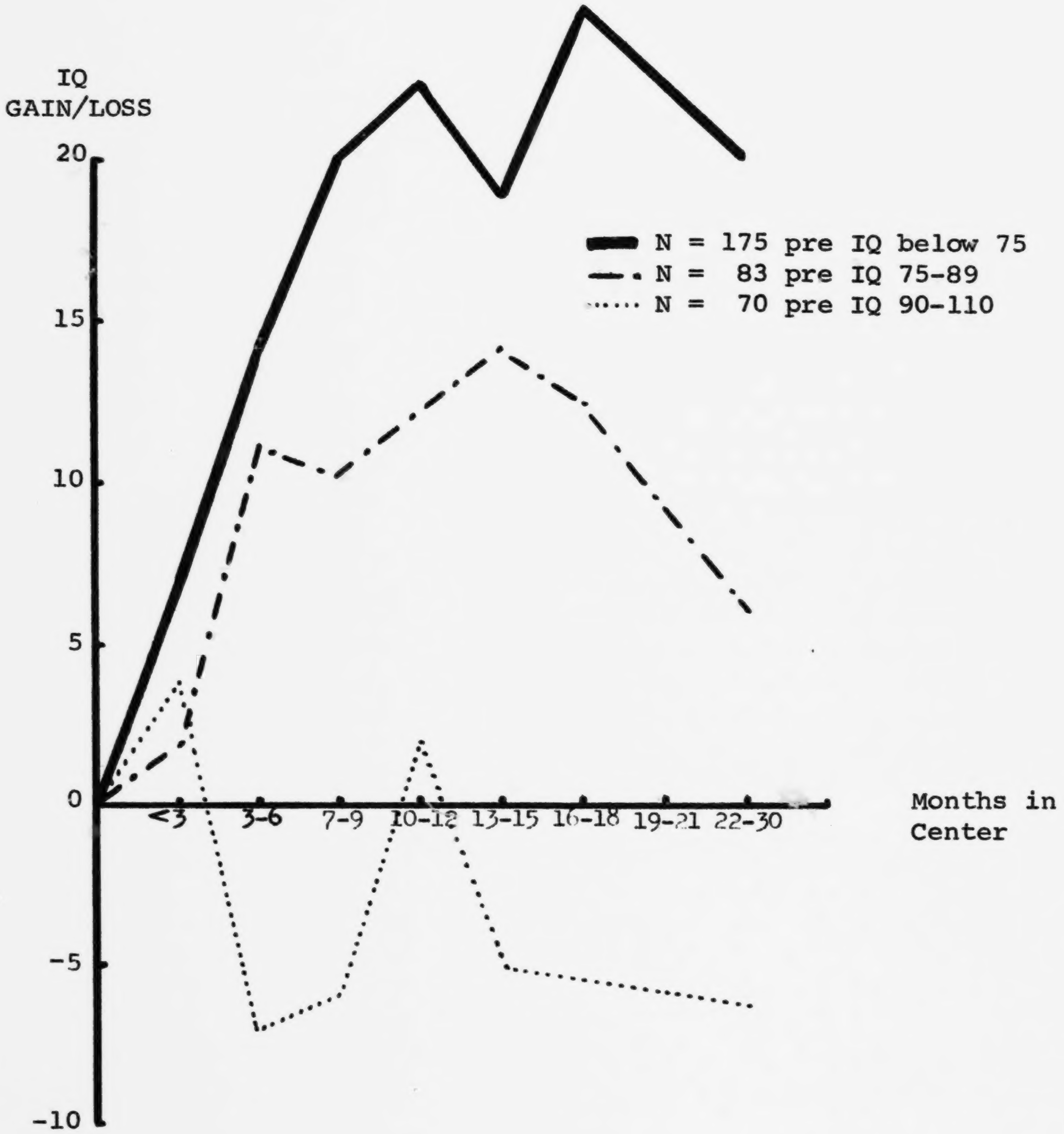
PPVT Test Scores and Growth Curve

Since the inception of the Preschool Readiness Centers Program a total of 328 children have been tested with the PPVT three or more times during their center stay.

The chart on the following page illustrates graphically the growth and decline of IQ over a period of time. The initial or pre PPVT scores of these children were grouped to determine relative rate of growth. The three groups consisted of those children with a pre IQ score between 90-110; those children with a pre IQ score between 75 and 89, and those children with a pre IQ score below 75.

It can be seen that the greatest gains were made, as expected, by the children scoring below 75. These children continued to gain for up to 18 months in the center program, and then began to decline. Children with a pre IQ in the 75-89 range made smaller gains and begin their decline after 15 months in the center program. After a period of approximately two years these children scored seven points higher than their initial test score. The children who scored in the average range on the pre test scored above their initial pre PPVT at only two points -- after three months and at one year. After two years they scored six points below their initial pre PPVT score. The IQ loss sustained by the Phase II children in this IQ range may account for the erratic pattern of gain/loss. Phase I children in the 90-110 IQ range maintained their entry level score.

Because of turnover in the center population a sequenced, consecutive curriculum is difficult to follow, even if such a guide were available. Ideally, the class should be divided into small homogenous groups. In the center with only a teacher and an aide, the class could be divided into two small groups. In practice this is rarely done. Often the teacher or aide spends as much time per day preparing snacks and lunch for each class, as she does in conducting activities.



GRAPH I
PEABODY PICTURE VOCABULARY TEST
IQ GAINS BY PRE IQ RANGE
AND MONTHS IN CENTER PROGRAM

It seems, too that the teachers have lowered their expectations of the children's ability and are teaching on a lower level than previously. There is some evidence to support this contention in the comparison of Phase I and Phase II children. The table below presents pre and post PPVT scores for Phase I and Phase II children.

Table 35

MEAN PRE-POST PPVT SCORES BY IQ GROUP FOR PHASE I AND PHASE II CHILDREN

	PHASE I			PHASE II	
Pre IQ	Center	1st Grade	2nd Grade	Center	1st Grade
Under 75	59.8	80.5	84.8	55.0	83.5
75-89	80.9	94.9	90.5	81.8	91.3
90-110	97.0	97.7	96.9	99.8	96.3
Over 110	119.1	105.9	105.7	-	-

The Phase I children in the pre IQ range under 75 made expected gains; children in the 75-89 pre IQ range made greater gains than expected; children in the other groups made smaller gains than expected. In Phase II the children scoring under 75 on the pre PPVT made greater gains than expected, and the children in the 75-89 IQ range made expected gains. It would seem that the emphasis of center activities may have been changed to meet the needs of the very slow child, resulting in less attention to the child who has progressed beyond that stage. Then, too, the teachers seem to greatly underrate the capabilities of a preschool child. In a demonstration of this, teachers were asked to point out on the sub-tests of the ITPA (Illinois Test of Psycholinguistic Abilities) how far a five year old should be able to go. The teachers consistently chose the 2½ to 3½ year level. Thus, they are under-estimating the capabilities of a five year old by at least 2½ years. This is even lower than the children's depressed test scores actually indicate. The average 5 year old child on entry into the program had a mental age on the PPVT of approximately 3 years, 6 months. On leaving the program to enter public school - an average of 10 months later - they had a mean mental age of 5 years, 1 month. This was a mean mental age gain of 20 months in ten months time.

Perhaps, if the teachers' expectation of the abilities and capabilities of a preschool child were increased, the level of performance of the center child would also increase.

Currently the new Education Director is working with the center teachers developing a new curriculum. Some of the teachers have attended an eight week training course at the University of Wisconsin in Milwaukee, which provided them with new ideas and more effective teaching methods. What effect this will have on the children's performance cannot really be assessed. The goals for the educational program of the Preschool Readiness Centers is presented in Appendix E. To enable the Education Director to focus curriculum on observed language deficiencies in the centers, two sub-tests of the Illinois Test of Psycholinguistic Abilities (Auditory Perception, Visual Perception) were administered to 120 children in three centers. Two additional sub-tests (Auditory Association, Visual Association) were administered to many of the children in two of the centers. The table below presents the mean chronological age and language age for children in the center program.

Table 36

ITPA SUB-SCALE LANGUAGE AGE IN MONTHS
OF CHILDREN IN THREE PRESCHOOL CENTERS

		Language Age			
Center	C. A.	Auditory Reception	Visual Reception	Auditory Ass'n	Visual Ass'n
1	63	51	62		
2	60	55	62	60	56
3	63	62	70	57	56

The Educational Director had been working with the teachers of Centers 2 and 3, implementing classroom activities and curriculum developed by Dr. Merle Karnes. All teachers received some in-service training centered on activities for developing psycholinguistic skills. That such directed activities are effective in enhancing the language development of the disadvantaged child may be assumed from

ITPA Test results. Children from Center #2 and #3 scored better than children in Center #1. None of the children were given a pre-test, however, but past evidence indicates that at least on the PPVT given on entry into the program, Center #1 children have consistently scored higher than children from the other two centers.

Plans are in progress now to change the structure of the Head Start program. The proposed center operations is illustrated in Appendix F. The planned changes have not been made as yet, but are expected to begin before fall. Evaluation will be undertaken by SRI as part of the nationwide evaluation of the Follow Through Program.

Self Concept and the Preschool Child

It was felt that an important part of the evaluation of a preschool program for disadvantaged youngsters might be its effect on the self-concept of the child. Particularly, in view of the fact that a child's perception of himself is largely shaped during his early years.

There are good grounds in child development theory for believing that the self does not exist in the infant. Realization of self is acquired gradually. In the preschool child it is still a fluctuating quantity. Because the home offers a child his first set of experiences and enables him to assign meaning to the roles of parents, siblings and other persons in relation to himself, parent-child interaction is a crucial variable in the development of the self-concept. In school the teachers and other children's evaluation of him becomes part of his concept of self.

The projective techniques or self report instruments available for measuring self concept did not lend themselves to the non-verbal preschool child. The only test known to be available was the Preschool Self-Concept Picture Test developed by Dr. Rosetelle Woolner[5]. For the past year this test has been administered on an experimental basis to the children in the Preschool Readiness Centers.

The test consists of ten plates with paired pictures. The characteristics depicted are those that preschool children may attribute to themselves. These characteristics are:

1. Dirty vs Clean
2. Active vs Passive
3. Aggressive vs Non-aggressive
4. Afraid vs Unafraid
5. Strong vs Weak
6. Acceptance of male figure vs Rejecting male figure
7. Unhappy vs Happy
8. Group rejection vs Group acceptance
9. Sharing vs Not sharing
10. Dependence vs Independence

The child was asked to point to the picture most like him. To determine the congruence between self concept and ideal self concept, the children were asked "which one would you like to be?" The test consisted of a set of plates for boys and one for girls. The revised plates used in the Preschool Readiness Centers depicted black children.

Dr. Woolner identified the positive characteristics for boys and girls as follows:

BOYS	GIRLS
Clean	Clean
Active	Passive
Aggressive	Non-aggressive
Unafraid	Unafraid
Strong	Weak
Like male figure	Like male figure
Happy	Happy
Group acceptance	Group acceptance
Sharing	Sharing
Independent	Independent

An examination of characteristics that Preschool children attributed to themselves revealed a great deal of difference between boys and girls, and also between levels of poverty. The tables that follow show the percent of children choosing the positive characteristics when asked "Which one are you?" and "Which one would you like to be?"

Table 37 presents positive self and ideal choices of 52 girls from the Preschool Centers by poverty level. The non-poverty children were not middle class, but those from families with an income slightly above the Government Index of Poverty Level. The middle class figures given are those in Woolner's study.

Table 37

PERCENT POSITIVE RESPONSE FOR GIRLS
ON PRESCHOOL SELF-CONCEPT PICTURE TEST

	AFDC		Poverty		Non-Poverty		Total		Middle Class	
	S	I	S	I	S	I	S	I	S	I
Clean	80	60	89	95	100	100	87	79	83	80
Passive	20	36	26	26	37	50	25	35	36	53
Non-Aggressive	60	48	47	68	63	37	56	54	73	76
Unafraid	20	40	26	26	63	75	29	40	83	76
Weak	44	40	37	58	63	50	44	48	13	30
Acceptance Male	60	40	58	37	63	50	60	40	73	80
Happy	48	56	74	74	75	63	61	63	73	83
Group Acceptance	48	36	74	74	87	75	63	56	73	76
Sharing	36	48	37	37	37	37	37	42	80	67
Independence	56	60	47	42	75	63	56	54	67	76
Total	47	46	52	54	66	60	52	49	67	76
N =	(25)		(19)		(8)		(52)			

Only two characteristics of girls are essentially the same for each of the levels of poverty - acceptance of male figure and sharing. In most cases the non-poverty children are more similar to the middle class children than are the poverty children, or those from families receiving aid to dependent children.

There are three really striking differences between the East St. Louis Preschool children and the middle class children of Woolner's study. Eighty-three percent of the middle class girls saw themselves as unafraid, compared with only 29 percent of the Preschool girls. Some of this difference between the center children and the middle class children may be a result of the plates or pictures used. The test, of course, was developed initially for middle class children. The original set of plates used by Dr. Woolner to depict the concepts of 'afraid' and 'unafraid' seem to be ambiguous. The revised set of plates used with the Preschool children is much less ambiguous. In the revised plates, the choice is between a girl simply sitting on a swing and a girl hanging by her knees from a bar. There is some evidence to indicate that for the preschool population the choice of sitting in a swing may not represent fear as much as unfamiliarity with playground equipment. Sixty-three percent of non-poverty Preschool children saw themselves as unafraid, as compared to only 20 percent of the AFDC children. The non-poverty children in the Preschool program, it seems, would be more likely to have had exposure to playground equipment. The sample of non-poverty children, however, is quite small.

The second striking difference between Preschool Readiness Center children and Woolner's middle class sample is in the characteristics of sharing and not sharing. Eighty percent of the middle class girls saw themselves as sharing; only 37 percent of the Preschool Readiness Center girls saw themselves as sharing. Perhaps this is because they have so little to share. Another factor, however, may be involved. The center boys, particularly boys from AFDC families, saw themselves as sharing. Thus, this characteristic may have some basis in the particular inner-city culture. Again, the plates may appear ambiguous to the child.

The third major difference in the middle class and poverty childrens' self concept is in the characteristic designated as weak or strong. Woolner considers 'weak' to be a positive characteristic for females in the American culture, and 'strong' the desirable characteristic for boys. However, in Woolner's study only 13 percent of the girls thought they were weak, and less than half of the center girls thought they were weak.

The really debilitating effects of the welfare system on the child is clear. Girls from families receiving

AFDC see themselves as afraid, unhappy and rejected by their peers. Interestingly, the boy from an AFDC family has a more positive concept of self than the child from the non-AFDC poverty family. In Woolner's study, boys also had a more positive self-concept than girls. This can in part be attributed to the assignment of 'passive' and 'weak' as positive characteristics for girls, characteristics girls do not often attribute to themselves.

An interesting difference between self and ideal self-concepts occur for the non-aggressive characteristics. Those girls who were most aggressive wanted to be less so. The AFDC girls who saw themselves as non-aggressive wanted to be more aggressive. This was true of middle class girls, too; 96 percent of them saw themselves as non-aggressive, but only 85 percent wanted to be non-aggressive.

The Preschool children would like to be less afraid, but the proportion of those wanting to be unafraid was only 40 percent compared with 93 percent for the middle class girls of Woolner's study. One would question if the Preschool children interpret the plates in the same way as Woolner's middle class children.

The most pronounced difference between self-concept and ideal self-concept for girls was in acceptance or rejection of the male figure. The Preschool children were more likely to see themselves as rejecting the male than were middle class girls. To a much greater extent, they wanted to reject him; only 40 percent chose the plate depicting acceptance of male figure as compared with 80 percent of the middle class girls. Even at this young age, disadvantaged girls seem to have some ambivalence toward the male figure. On the other hand, the Preschool boys would like to accept the male figure, and the middle class boy would like to reject him.

Surprisingly, the Preschool girls did not seem to want to be happy; that is, they did not select the corresponding plate. The proportion of positive self responses was 61 percent; the proportion of positive ideal responses was 63 percent. There was no difference in the self and ideal self-concept of the middle class girls on the above characteristic. Ninety percent felt they were happy, and ninety percent wanted to be happy. Here, again, one might question the interpretation of the pictures.

The Preschool Center girls wanted to share more, and middle class girls wanted to share less. Preschool girls wanted to be somewhat less independent, and the middle class girls wanted to be much more independent. Fifty-four percent of the Preschool girls wanted to be independent, and 90 percent of the middle class girls wanted to be independent.

While there were internal differences on specific characteristics from self to ideal self-concept, there was almost no difference in the proportion of positives endorsed by the Preschool and the middle class children.

Table 38 presents the percent of positive responses for boys when asked "Which one are you?" and "Which one would you like to be?"

Table 38

PERCENT POSITIVE RESPONSES FOR BOYS
ON PRESCHOOL SELF-CONCEPT PICTURE TEST

	AFDC		Poverty		Non-Poverty		Total		Middle Class	
	S	I	S	I	S	I	S	I	S	I
Clean	77	77	75	75	87	87	78	78	86	70
Active	89	69	75	75	75	87	82	62	40	48
Aggressive	65	58	37	19	50	87	54	38	64	35
Unafraid	39	42	37	50	37	63	38	48	83	75
Strong	50	54	44	25	87	37	54	42	81	75
Accept Male	39	42	50	63	63	37	46	48	91	75
Happy	73	77	75	81	87	75	76	78	78	83
Group Acceptance	61	61	44	63	37	63	52	62	86	75
Sharing	81	81	63	56	50	87	70	74	75	69
Independence	50	46	56	44	50	37	52	44	74	81
Total	62	61	56	55	63	51	60	57	74	74
N =	(26)		(16)		(8)		(50)			

Only two characteristics of the Preschool Center boys were essentially the same for each of the three levels of poverty. About 37 percent of the boys felt they were unafraid. All poverty levels of Preschool boys saw themselves as equally independent. The other eight characteristics showed a marked difference by degree of poverty.

The boys from the Preschool centers also differ in certain characteristics, or concepts of self, from middle class boys of Woolner's study. The differences are even more pronounced than those between the girls. The boys from the Preschool centers see themselves as much more active than middle class boys. In middle class culture, being active is considered a positive trait for boys, yet only 40 percent of the middle class boys saw themselves as active, compared with over 80 percent of Preschool Readiness Center boys. This choice of active on the part of boys from poverty families may be influenced by the plates depicting 'active' and 'passive'. One plate shows a boy running; the other, a boy working on a jigsaw puzzle. Many poverty children may never have seen a puzzle before.

As with the girls, the Preschool boys see themselves as afraid. Eighty-three percent of the boys in Woolner's study saw themselves as unafraid, compared with 38 percent of the Preschool boys. Unlike the choice of the girls, which may have been influenced by lack of familiarity with playground equipment, the plates for boys depicting 'afraid' and 'unafraid' are familiar to the inner-city child, as well as the middle class child. In this case, the high proportion of middle class children seeing themselves as unafraid may have been more the result of the ambiguity of the original plates than of any real difference in the feeling of fearfulness or fearlessness. A sample of tests of middle class children using the new plates would provide a more reliable comparison.

Another distinct difference between poverty children and middle class children is the acceptance or rejection of the male figure. Poverty girls are less likely to accept the male than are middle class girls, but the difference is not nearly as great as that between poverty and middle class boys. Only 46 percent of the Preschool boys chose the plate depicting 'acceptance' as opposed to 91 percent of middle class boys.

Boys from AFDC families, where a father is least likely to be in the home, were most likely to reject male figure (61%). Thirty-seven percent of the non-poverty Preschool boys rejected the male figure. This does not approach the low 9 percent of middle class children, but does probably reflect a more stable home life and one in which the father is more likely to be present.

Several interesting reversals occur by poverty level among the boys. Boys from AFDC families had more positive self-concepts than boys from poverty families. The proportion of positive responses of AFDC boys was essentially the same as that of the non-poverty boys in the sample, but not as high as Woolner's middle class sample. Again, the boy from an AFDC family feels more accepted by the group and sees himself as sharing more than the other sample Preschool children.

Despite the fact that the AFDC boy sees himself as less happy than boys from the other poverty levels, the proportion choosing the plate depicting 'happy' is as high as the proportion of middle class girls choosing 'happy', and nearly as high as the proportion of middle class boys. Thus, poverty, even in a somewhat matriarchal culture, seems to be more debilitating to girls than to boys at this early age.

While aggressiveness is considered a positive trait for boys in American culture, both the Preschool Center boys and the middle class boys wanted to be less aggressive. Preschool boys saw themselves as very active, but wanted to be less so. Interestingly, a high proportion of middle class boys saw themselves as accepting the male figure, but the proportion of acceptance was less on the ideal self-concept.

It is interesting to note there is not as great a discrepancy between the self-concepts of the Preschool boys and middle class boys as there is between the Preschool girls and middle class girls. There is even less difference between the Preschool boys' ideal self-concept and the middle class boys' ideal self concept. For middle class and poverty girls the difference between ideal self-concepts is greater than between self-concepts.

Boys, too, have greater congruence between self and ideal self-concept. The agreement for boys was 6.8; for girls 5.7. Boys from AFDC families had the highest agreement, non-poverty boys had the lowest. Non-poverty girls, on the other hand, had the highest agreement and girls from AFDC families had the lowest.

In Woolner's study the Preschool Self-Concept Picture Test was given to a group of emotionally disturbed children and a sample of emotionally healthy children. The results indicated that emotionally distrubed children viewed themselves as having more negative characteristics than normal children. Table 39 presents the amount of agreement (congruence) between self and ideal self-concept, and the number of positive choices by sex and poverty level.

Table 39

SELF-IDEAL CONGRUENCE AND POSITIVE RESPONSES BY SEX AND POVERTY LEVEL

	Agreement Self-Ideal		Positive Self-Concept Responses	
	Boys	Girls	Boys	Girls
AFDC	8.0	5.9	6.1	4.7
Poverty	5.8	7.5	5.7	5.1
Non-Poverty	5.1	7.3	6.3	6.7

Again, it can be seen that extreme poverty seems to have a more debilitating effect on girls than on boys, at least on the preschool level.

There may be some question about the validity of the plates depicting certain characteristics; that is, the children, particularly disadvantaged children, may not interpret the plates as intended. Nevertheless, it is clear that some of the characteristics do have different meaning and value to inner-city children, and that this difference is largely a result of the particular inner-city culture in which they live.

Because of time and staff limitations, the Woolner's Preschool Self-Concept Picture Test was administered to only a small number of the Preschool children who entered first grade in September. Twenty-six children, thirteen boys and thirteen girls, were given both pre and post tests. On the post test a greater proportion of girls saw themselves as active, aggressive and strong. These characteristics in girls are considered as negative in the American culture. The test, although designed for middle class children, is also applicable to the disadvantaged child; it would seem, though, that the results must be interpreted with caution. For a child who is very withdrawn and extremely passive, as are many of the poverty children when they first enter the program, a change to more active, more aggressive characteristics is a distinct gain. That is, the positive and negative aspects of change must be considered in a relative way. For the Preschool girl the change could be considered positive rather than negative. The girls also felt happier, shared more and were more willing to accept the male figure. They were, however, more afraid, less independent and felt more rejected by the group. It should be remembered, though, that this post test was given soon after the children entered first grade. Some of the fear and rejection felt may simply reflect the immediate reaction to an unfamiliar situation.

The boys saw themselves as less active, a great deal less aggressive, less afraid and happier. However, they also felt less independent and weaker. Here, again, the actual classroom experience may have had more effect on the responses than the intervening preschool program.

In an effort to find out how the children actually perceive the pictures of the Woolner's Preschool Self-Concept Picture Test, a number of boys and girls were asked why they made the choice they did. It was evident that some of the pictures were not perceived by the children as representing the intended characteristic. Several factors besides the possible ambiguity of the pictures may be involved. The child may readily make a choice, but when questioned cannot verbally express the reason for his choice. Thus, in many cases his response may not actually reflect the reason for the choice made. Another factor involved may be the way young children perceive. There is a marked individual difference in perception in early childhood. A child's perception is a function of learning and experience, and how he organizes what he sees changes with age. Too, a child will often select parts that have more meaning to him, particularly when he has no labels for the whole. Perhaps, even the relatively simple drawings of the Woolner Test are not seen as an integrated whole by many of the Preschool children.

The table below presents the percent of irrelevant reasons for choice of positive and negative characteristics. The starred characteristics are considered positive for girls and negative for boys. Reasons given for negative choices, as a whole, were more likely to be irrelevant.

Table 40

PERCENT IRRELEVANT REASONS GIVEN FOR CHOICE

		BOYS		GIRLS	
Plate		Pos.	Neg.	Pos.	Neb.
I	Clean/dirty	22.2	100.0	37.0	50.0
II	Active/passive*	30.8	0.0	100.0	9.5
III	Aggressive/non-aggressive*	20.0	100.0	86.7	0.0
IV	Afraid/unafraid	11.1	71.3	0.0	57.9
V	Strong/weak*	33.3	20.0	45.5	66.7
VI	Accept/reject male figure	0.0	90.0	0.0	100.0
VII	Unhappy/happy	30.8	33.3	16.7	0.0
VIII	Group acceptance/rejection	20.0	100.0	84.6	100.0
IX	Sharing/non-sharing	23.1	66.7	60.0	71.4
X	Dependent/independent	37.5	50.0	58.3	55.5

How many of the irrelevant reasons are due to the ambiguity of the plates, and how many to other factors is unknown. It is certainly true that young black children are unused to seeing pictures of black children and this may tend to influence their choice. Another factor that may be responsible for the high percentage of irrelevant perceptions is the black culture itself.

In Dr. Woolner's study only one characteristic produced a high proportion of irrelevant responses - afraid/unafraid. The original plates depicting afraid/unafraid were not easily interpreted as such. The characteristics of aggressive and non-aggressive also elicited a relatively large proportion of irrelevant responses. Nevertheless, the middle class children of Woolner's study, unlike the Preschool children, appear to be able, in most instances, to describe the characteristic being depicted. Among the Preschool children of this study a preoccupation with clothes and appearance was evident in the reasons given for selecting a specific boy or girl. Irrelevant responses often referred to clothes or appearance of the boy or girl being depicted on the plates, although the pictures in the paired plates were similar. None of the boys mentioned clothes in an irrelevant response, but nine of them selected a picture because the boy was prettier or looked better. Five girls mentioned a choice because of clothes, and 21 made a choice because the girl was prettier, hair was combed, had nicer legs, etc.

A tabulation of some of the children's responses to the pictures will point out the need to interpret the results of the test with caution.

PLATE 1 - Dirty/clean

Out of 18 boys questioned, 14 chose the positive characteristics. Of these 14 only 8 selected the boy because he was clean. All the other choices, both positive and negative, were chosen because of a detail of the picture. For example, several responded that they liked to clean cars or play in water. One boy chose the plate depicting "clean" because he thought the boy was white. This is probably not so much a racial reference as it is an association of clean with white.

Twenty-three girls were given the Preschool Self-Concept Picture Test and each was asked to explain her choice. Sixteen girls chose the positive characteristic, nine chose it because the girl was clean. Seven girls chose the girl who was dirty. One of these three girls responded that they liked to play in mud. One girl refused to choose either girl because they were not white. This statement seems to be more obviously a reference to blackness.

PLATE 2 - Active/passive

Thirteen boys chose the 'active' plate, and five chose the 'passive' plate. Nine of the 13 gave reasons that indicated they perceived the boy as being active. One thought the active boy was prettier, and one chose him because he was bigger. The reasons for choosing 'passive' seemed to indicate that the picture was actually perceived as intended.

Twenty-one out of 23 girls also chose the 'active' plate which is considered to be a negative choice for girls. Eighteen girls chose the 'active' plate because the girl was jumping rope. Two chose the 'passive' picture because the girl had a doll. Since both jumping rope and dolls are considered to be girl activities, perhaps the active choice should not be considered a negative choice.

PLATE 3 - Aggressive/non-aggressive

Ten out of 17 boys chose the 'aggressive' plate, but seemed to perceive the boy as active and not necessarily as aggressive. The reasons given for choosing the 'non-aggressive' boy were: "he's pretty", "he looks better", "he has good hair", etc.

Eight girls chose the 'aggressive' girl because she was playing or doing something. Fifteen girls chose the 'non-aggressive' girl because "she looks better", "I like her shoes", "she dresses nice", "her hair is combed", "she's not dirty", "she's not doing anything."

PLATE 4 - Afraid/unafraid

Seven boys chose the plate depicting 'afraid'. Some of the responses were "shouldn't climb on fences", "may fall and hurt himself." Most of the boys who chose the 'unafraid' plate did so because they "liked to walk on fences."

Only four girls chose the 'unafraid' plate. Some of the children choosing the 'afraid' plate admitted they were afraid, or didn't like to be upside down. Other reasons given were "she has nice shoes", "she looks pretty", "her hair looks better."

PLATE 5 - Strong/weak

Eight of the 12 boys who chose the 'strong' plate perceived the picture as depicting strong and were able to express it verbally. Only five boys chose the 'weak' plate and four of them did so because "the basket is little."

Twelve girls chose the 'strong' plate, which is considered a negative characteristic for girls. Eight of these chose to be strong; the other four reasons given were irrelevant. Eleven chose the 'weak' plate; five because the basket was smaller. Other reasons had to do with appearance: "she doesn't have much on her hands", "I don't like the other one's legs", "legs and face cleaner", "prettiest."

PLATE 6 - Acceptance/rejection of male figure

Seven boys chose 'acceptance.' All of these boys perceived the man as a father. Ten chose 'rejection." Only one of these perceived the man as a father; the others chose the plate because the boy had a toy or yo-yo.

Ten girls chose 'acceptance.' All of the girls perceived the man as a father. Eleven chose 'rejection.' As with the boys, most of the reasons given were because the girl had a toy, a doll.

It was felt that the child without a father in the home would be more likely to reject the male figure. However, children from families receiving aid, those most likely to lack a father, were no more likely to reject the male figure than the child from an intact family. It was found that while many welfare families may not have a father in the home, fully half of the AFDC children questioned reported having contact with their father. It is not uncommon for the father to live next door, on in the next block, in order to meet the requirements governing welfare eligibility. Those children who had no contact with a father were more likely to reject the male figure, although some children with a father in the home were equally rejecting.

PLATE 7 - Unhappy/happy

Only three boys chose the 'unhappy' picture, and only one admitted it was because he cried. Nine out of 13 boys who chose the 'happy' plate did so because the boy was laughing or happy. Other responses were irrelevant.

Ten girls chose the 'unhappy' plate. All admitted they cried when whipped, or were left home alone. One admitted she cried to get her way. Twelve chose the 'happy' plate. Ten of these did so because the girl was smiling or laughing.

PLATE 8 - Group Rejection/acceptance

Twelve boys chose 'group rejection'. None of the responses were relevant. Five boys chose 'group acceptance'; four responses were relevant to the characteristic depicted.

Eight girls chose 'group rejection' and, again, none of the responses were relevant. Six chose the picture because the girl was playing with something. Thirteen girls chose 'group acceptance.' Only two were able to express the characteristic being depicted; the other reasons given were irrelevant.

PLATE 9 - Sharing/non-sharing

Thirteen boys chose 'sharing'; eleven saw the boy as sharing. Only six chose the 'non-sharing', and only one of these admitted it was because the boy was not sharing.

Fifteen girls chose 'sharing.' Six chose it because the girl was sharing candy. Nine chose the picture because the girl had candy and was eating it. Seven girls chose 'non-sharing' because the girl had candy, or because she doesn't give candy. The plates here are not clear enough to be interpreted consistently.

PLATE 10 - Dependent/independent

Eight boys chose the plate 'dependent', depicting a mother pouring some milk or juice for a small boy. Three of these admitted they couldn't do it; the other reasons were irrelevant. Ten chose the 'independent' plate. Five children chose it because the boy was pouring his own. The other reasons given were irrelevant. For example, "the boy already has his", "he's going to bed", "he's drinking juice, the other has water."

Nine girls chose the 'dependent' plate. Three of these liked their mothers to pour; one responded that when she poured she wasted. Other responses were irrelevant. Twelve girls chose the 'independent' plate. Five chose it because they liked to pour their own. The other reasons were irrelevant.

DISCUSSION OF FINDINGS

An evaluation of an existing program presents many difficulties to the researcher. Unforseen factors that cannot be controlled often tend to obscure or influence the outcome. However, if these factors are recognized they need not invalidate the findings, but will tend to dilute them and, thus, limit the conclusions and generalizations that can legitimately be drawn.

Then, too, there is a need to make some distinction between statistical significance and practical significance. In some instances a finding may be statistically significant, but not practically so in terms of the stated objective of the program. At other times the results may not be significant statistically and yet have some practical implications for future plans or effective program changes.

A look at some of the major hypotheses of this study in terms of their statistical and practical significance will point out some of the incongruities often found in statistical evaluations.

The hypotheses tested are presented in operational form.

Hypothesis 1: Disadvantaged children who participate in the Preschool Readiness program will be better prepared (as measured by the Metropolitan Readiness Test and the Peabody Picture Vocabulary Test) to compete with children from the same socio-economic level who have not had such experience.

For both Phase I and Phase II children, this expectation was confirmed at the .001 level of confidence. Evidently, then, preschool experience (with trained subprofessional teachers) is able to prepare the deprived child for public school. Nevertheless, the PPVT scores were still depressed, and the mean MRT score was in the low average range.

It was also expected that preschool experience would effect a significant change in pre-post IQ scores.

Hypothesis 2: Attendance at a Preschool Readiness Center will effect a significant change between pre and post PPVT scores.

This hypothesis was also confirmed. Nevertheless, the mean post IQ for both Phase I and Phase II experimental children was still below the average range.

Hypothesis 3: Disadvantaged children who have had at least one year in the Preschool Readiness Center will do as well on the Metropolitan Readiness Test as their more privileged schoolmates who have had no preschool experience.

This hypothesis was confirmed for Phase I children. In fact, the Preschool children scored significantly higher on the PPVT than the middle income children living in the same neighborhood, and attending the same schools. Here practice effect must be considered. There was, however, essentially no difference in MRT scores between the two groups.

Phase II children present a somewhat different picture. The Preschool children (X-1) did score significantly higher on the PPVT than the X-2 and C-1 children. They scored lower, however, than the middle income sample children. All groups scored significantly lower than the middle income sample children on the Metropolitan Readiness Test.

The higher performance of Phase II middle income children, in part, can be attributed to the selection process. Last year it was nearly impossible to find middle income children without preschool experience in the inner-city schools. This year the sample was drawn from several fringe area schools where the population is more stable and more nearly middle class.

What is significant here is not only the failure of the X-1 children to score appreciably higher on the MRT than the other sample children, but also the dramatic drop in MRT scores of Phase II Preschool children. Phase I children scored at the 31st percentile on the MRT; Phase II children scored at the 20th percentile. This drop in school readiness raises some pertinent questions, particularly in view of the fact that both pre and post PPVT scores of the children were essentially similar. Too, Phase II children spent more days in the center program than Phase I children. Except for a somewhat greater proportion of poverty level children in Phase II, the children served were not different than those served last year, yet they remained grossly ill-prepared, as measured by the MRT, to succeed in first grade. Nor can the overall decrease be attributed simply to the greater proportion of poverty children in Phase II as the table below indicates.

Table 41

MEAN PPVT AND MRT SCORES BY POVERTY LEVEL

	PHASE I			PHASE II		
	Pre PPVT	Post PPVT	MRT %	Pre PPVT	Post PPVT	MRT %
AFDC	73.1	85.0	41.9	72.8	87.9	35.0
Poverty	78.1	90.1	47.2	73.6	83.5	38.3
Non-Poverty	90.2	96.4	50.1	79.8	90.7	50.3

As discussed previously, no other variable examined was as relevant to test performance as income level. However, income level alone does not explain the low scores of Phase II children. Only the non-poverty children obtained equally high MRT scores in both phases. Phase II children in the other income levels scored considerably lower than Phase I children from the same income levels.

Since the children served this past year were no different from those served the previous year, other factors or program changes must account for the poor performance of the Preschool children.

The Preschool Centers were opened early in 1966. Phase I children, those who entered public school in September, 1967, had spent an average of approximately one year in the center program. The program at that time was relatively new, the non-professional teachers newly trained, but without much experience. In new programs, enthusiasm and morale are high. Weekly in-service training sessions were held to demonstrate new teaching methods and to stimulate new ideas. Lesson plans for the next week's program, although unpopular, were required from each center teacher.

In June of 1967 the original director of the Preschool Readiness Centers left the program, but continued serving for a time as a consultant to the new director. With a change such as this, a shift of direction or emphasis is likely to take place. Some changes were made almost immediately; others were made over a period of time. Unfortunately, lesson plans were discontinued. Teachers, then, tended to do little planning, and often the activities initiated were those that needed little preparation. With the loss of the Education Director, in-service training was discontinued. More seriously, the enthusiasm and morale of many of the staff members deteriorated greatly. Since June of 1967 there has been a constant turnover in central office staff. This includes the loss of two nurses, two nurses aides, two social workers and two educational directors. All of the original professional staff members have left the program. There has, however, been only minor turnover among the center teaching staff.

Since March, 1969 the Preschool Readiness Centers program has been administered by the local Office of Economic Opportunity. Southern Illinois University is no longer involved. This move has increasingly changed the emphasis of the program, as well as the structure of the Preschool centers, and further changes are anticipated.

Thus, in evaluating a program over a period of time, uncontrolled factors may intrude. The children may be different, the staff changed, the emphasis shifted. In effect, the evaluation is of two different programs and, thus, the results are not really comparable.

How does one maintain enough stability in a program from year to year to minimize the effect of staff turnover, internal conflict and other more or less normal organizational changes? Discussion and mutual agreement between the director of a program and the researcher can minimize the effects of organizational or policy changes on the research design. Staff turnover is very common in programs of this kind, but these changes are not necessarily harmful to the program. However, this turnover does affect many aspects of an evaluation project. The degree to which these changes in staff, or changes in approach, affect the results of the evaluation cannot readily be assessed.

Another hypothesis involved parent participation and child achievement.

Hypothesis 4: Children whose parents were actively involved (working in the centers, participating in parent meetings, etc.) in the parent program of the center will achieve higher scores on the Metropolitan Readiness Test and the PPVT, than children whose parents were not involved.

This hypothesis was confirmed at the .05 level. The children of non-participating parents in both phases scored significantly lower on the Metropolitan Readiness Test. However, the Phase II MRT scores were lower for each of the "degree of participation" groups.

As mentioned previously, parent participation in the Preschool program has little real effect on the child's achievement. That is, it is the parent and not the participation that plays a role in child's performance. In both phases of the study, children of parents who were rated 'good' participants scored significantly higher on the pre PPVT than the children of non-participating parents. Post PPVT scores, however, for Phase II show no significant difference between any of the groups. In Phase I the children of non-participating parents scored significantly lower on the post PPVT than the children whose parents did participate, if only minimally.

If parent involvement is to have a measurable effect on the child's achievement, it would appear that intensive effort must be made to involve the non-participating parent. If these parents could be reached, the children who have the greatest need would also make the greatest gains.

Age at Intervention

A further objective of this study was to determine an optimum age for intervention programs. Is Head Start too late? Evidence gathered in this study seems to indicate that no great benefit accrues to the child who enters at four years of age, as opposed to the child who enters at age five.

It appears that, depending on the individual child, maximum gains in the present program are made in 12 to 15 months. Some children coming into the center may already be above the level of the program offered. When new children are added it is necessary to cover some of the same material again, so, the child who has been in the center for months is not exposed to the new learning experiences he must have if he is to continue to make progress. Ideally, a class with such diverse levels of learning should be divided, and the appropriate activities and learning experiences provided for each group. In practice this is seldom done, and for the child who has been in the center program for some time the material is often repetitious.

Then, too, it cannot be expected that all children will make equal gains. Whatever the argument about IQ and the inadequacy of IQ tests, there does appear to be a wide range of intellectual ability among individuals. Thus, while it is reasonable to expect that the IQ level of the disadvantaged child can be raised, there is obviously a limit to how much gain can be anticipated. Too, it may well be impossible to raise substantially, or permanently, the average IQ level of the disadvantaged child given the high incidence of premature birth and poor nutrition. Many investigators have pointed out that prematurity at birth is associated with later intellectual deficiencies. Baumgartner[6] has analyzed data of live births by birth weight in the United States in 1957. For the country as a whole, the frequency of low birth weight is twice as great for non-white infants. Baumgartner attributes this to the greater poverty of the non-whites. It has been suggested that malnutrition at certain crucial ages may cause brain damage that can never be repaired. Maternal health and nutritional practices are known to be correlated with prematurity[7]. A great differential exists in the condition of health between whites and non-whites, between the advantaged and disadvantaged[8]. In view of the vast amount of research on the damaging effects of malnutrition and maternal ill-health on the intellectual functioning of the child, intervention programs must provide the optimal conditions and opportunities for learning if these handicaps are to be overcome!

A striking result of most preschool programs is an increase in vocabulary and word knowledge resulting in substantially higher IQ test scores, particularly when the test is largely a measurement of verbal ability. This knowledge, however, is not always associated with meaning, nor does it follow that the child has the basic tools necessary for achieving in the public school. Thus, gain in IQ test scores is not the sole criterion of program success. The goal of an intervention program might more appropriately be that of providing the child with learning tools and with motivation for learning. Too much credence is given the IQ test score as a measure of school performance and achievement. This is particularly true for the disadvantaged child for whom test scores are inevitably biased. Evidence gathered in this study suggests that only very high or very low IQ scores were predictive of school achievement of the Preschool child. For the large number of children who scored in the middle range, motivation for learning may play a more important role in school achievement than IQ test scores. As McClelland[9] has reported, the need for achievement is a strong motivating factor for school success. Rosen[10] reported that Negro lower class children have scored the lowest of all groups tested on need for achievement. That this motivating factor may play a part in the higher achievement of the middle-income sample children in this study is indicated by the fact that in three out of four of the sub-scale Metropolitan Achievement Tests the middle income children scoring in the average range (with a percentile rank from 23 through 76) had a lower mean IQ score than the low income experimental and control groups scoring in the same range. This did not hold true for middle income children scoring in superior or above average percentile range; nor for those in the below average range.

It would seem then, that some effort might be made to motivate the child to perform successfully in the school setting. McClelland suggests that the optimum time for stressing achievement standards seems to lie between 6 and 9 years of age. Thus, a child's later efforts may greatly depend on the motivation for achievement developed in the home, and in the early school years.

Conclusion

Evaluation of a program at two different points in time serves to remind the researcher how transitory such evaluations often are.

Policy and organizational changes are made, new staff is acquired, staff morale fluctuates. Each of these changes may have an unknown degree of influence on the results of the evaluation. Further, the findings might differ with a different sample of children, or a different mixture of children within the sample. This may, in fact, explain some of the contradictory findings of Phase I and Phase II of this study. A variety of other variables, which cannot readily be ascertained, may produce false statistical significance or obscure actual significance.

Nevertheless, with a proper consideration of these limitations, certain generalizations can be made and conclusions drawn that may have relevance for other preschool programs for disadvantaged children.

SUMMARY OF FINDINGS

Phase I of this study involved the follow-up of 105 children who had experienced the Preschool Readiness Program (X-1); 93 children who had participated in the summer Head Start program (X-2); 79 low income children with no preschool experience (C-1, 2) and 59 middle income children attending these same schools (C-3). All these children entered first grade in September, 1967.

The Preschool children were tested upon entry into the center program by means of the Peabody Picture Vocabulary Test, the Preschool Inventory, and a shortened, modified version of the California Test of Personality. All experimental and control groups were tested upon entry into first grade by means of the tests mentioned above, as well as the Metropolitan Teadiness Test. In the spring the Gates-MacGinitie Reading Test and the Metropolitan Achievement Test were administered.

Upon entry into the second grade all sample children, who were located, were given the PPVT and the modified California Test of Personality. Again, in the spring, the Gates-MacGinitie Reading Test was administered.

Phase II consisted of experimental and control groups as above, who entered first grade September, 1968. These children were given the PPVT and the MRT upon entry into first grade. In May the Gates-MacGinitie Reading Test was administered.

The Preschool children of Phase I scored significantly higher on the PPVT upon entry into first grade then children from the other experimental and control groups, but in all cases the scores were depressed. Upon entry into second grade the C-3 child scored higher than the Preschool children, but not significantly so. The PPVT scores of the C-1 children remained significantly lower than those of the Preschool children.

Essentially no difference was found between the groups in personal or social adjustment, as measured by the California Test of Personality administered upon entry into the first grade. At the beginning of second grade the Preschool children scored significantly higher on personal and social adjustment than the low-income children with no preschool experience.

There was no significant change in personal adjustment from first to second grade for any of the groups. All groups experienced a significant positive change in social adjustment.

After a year in public school, all groups experienced a loss in self-reliance, and increase in anti-social tendencies, as measured by a modified form of the California Test of Personality.

At the beginning of first grade Phase I Preschool children scored as well as the middle income children on the MRT, and significantly higher than the other study children. At the end of the year there was no significant difference in Metropolitan Achievement Test scores between Preschool children and other low income children. The middle income children scored significantly higher than the other groups on each of the sub-tests of the MAT.

Children of parents who participated in the Preschool program scored significantly higher on the pre PPVT, and continued to score higher than children of non-participants at entry into first grade, and again at entry into second grade.

Parent Participation had no measurable effect on child's personal or social adjustment as measured by the California Test of Personality.

Test scores, both pre and post, tended to reflect the families' level of poverty.

There was a significant difference in pre PPVT scores between children on a two-day schedule and those on a four-day schedule. By the time the children were in the second grade there was no difference in IQ scores.

There was no difference in IQ gains made by children attending on a two-day schedule and those attending on a four-day schedule, although for children with a very low pre IQ, the four-day schedule seemed to offer some slight advantage.

Children who entered the Preschool program at 4 years of age made only expected IQ gains. Children who entered at 5 years of age also made expected IQ gains.

Phase II, X-1 children scored significantly higher on PPVT than the X-2 and C-1 children, but lower than the C-3 middle income sample children.

The middle income children of Phase II scored significantly higher on the MRT than the children of other experimental and control groups.

Teachers tended to rate boys higher than girls on school readiness and ability at the beginning of the school year. At the end of the school year girls were rated higher than boys.

On the Gates-MacGinitie Reading Test administered at the end of the year, no significant differences were found between the experimental and control groups.

Children in the Follow Through program scored no higher on the Gates Reading Test than did non-Follow Through children. The Follow Through teachers, however, rated their children much higher, and had greater expectations for their success than teachers of other first grade children in the same schools.

Children with a low pre IQ mde the greatest gains. Children with high pre IQ made smallest gains. Other variables also differentiated high-gain and low-gain children:

1. Among the high-gain children there were fewer dependent on welfare and more from non-poverty families.

2. Low-gain children were more likely to come from an intact family. Conversely, high-gain children were more likely to come from a one-parent home.

3. Parents of high-gain children were less likely to participate in the Preschool program; perhaps, because they were more likely to be working.

4. Mothers of high-gain children had a higher educational level than mothers of low-gain children.

5. Parents of low-gain children were more often born in the South. Parents of high-gain children were more often born in the East St. Louis area.

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APPENDIX A

OBJECTIVES OF THE PRESCHOOL PROGRAM FOR SOCIALLY DISADVANTAGED CHILDREN

A. Provide learning in all areas of the nursery school or kindergarten through teacher verbalization.

Areas or Centers of Interest:

1. Table Activities: Peg boards, puzzles, hammer-nail sets, etc.

2. Doll Corner: Stove, refrigerator, sink, mirror, doll stroller, doll beds, baby buggy and pans.

3. Block, Truck and Accessories Area:

4. Music Corner: Record player, rhythm instruments.

5. Library Corner: Books, scrapbooks, pictures.

6. Creative Arts Area: Paints, crayons, dough, clay, collage.

7. Playground: Swings, climbing frames, sliding board, sand box.

    a. Initially, simple labeling (naming) of all objects the child manipulates or encounters.

    b. Providing the verbal mediators for all experiences:

    Examples:
    (1) "Darryl is hitting the pounding bench."
    (2) "Katy is pushing the doll stroller."
    (3) "Bob is sliding down the sliding board."
    (4) "Ricky is building a road with the blocks."

c. Developing concepts of color, number, size, shape, texture, position, distance, direction, quantity, weight. (Again, through teacher verbalization in all areas of the playroom - during free play time, as well as during group work.)

Examples:

(1) Katy is setting the table in the doll corner. "How many cups? Let's count them, one, two, three."

(2) Ricky has two plastic squeeze bottles, each with a primary color. As he squeezes them onto the paper, he sees a third color formed. "Blue and yellow make green, don't they, Ricky?"

(3) "Phil is swinging up and down."

(4) Songs, fingerplays and action games.

B. Provide experiences which will develop auditory discrimination. (Again, in all areas of the nursery school or kindergarten, teachers and aides encourage the child's exploration of sound and talk with the children.)

Examples:

1. Sounds heard outdoors on the playground, i.e. Placing an ear against the hollow metal upright of a swing. Sounds of trucks, buses cars.

2. Use of musical instruments.

3. Use of stories with emphasis on sound and children's participation in making sounds.

4. Use of songs and fingerplays.

C. Provide field trips to explore the real world, as:

Animals
Transportation
Food and stores
Community services: postal, health, firehouse, police.

Reinforce and relate these to the children's motoric needs through dramatic play and other methods of follow-up.

D. Provide science experiences which give concrete form to the development of thinking and reasoning: curiosity and exploration.

1. Magnets which can be used to test a variety of substances either arranged on the table, i. e. buttons, paper clips, small forms from hammer-nail sets, or round the room.

2. Seeds to grow, handle, open.

3. Bowls of water with styrofoam and nails for concepts of weight and volume.

4. Pets to feel, watch, take care of.

E. Help the child develop purposive learning activities and ability to attend for long periods of time:

1. Initially through group singing and fingerplays.

2. Story time.

3. Discussion and/or show-and-tell elicited later.

4. Use of color cubes, counting frames, peg boards, object cards, and lotto games, pictures for incongruities and for matching.

F. Help the child develop good self-concepts and sense of mastery of immediate environment.

1. Through teacher acceptance of children.
2. By encouraging independence and exploration.
3. By giving praise for the efforts and products made by children.

The Readiness Centers Program is designed to meet the needs of disadvantaged children ages 3 - 6.

Retarded in language development, the children are given individual attention to help build vocabularies and to provide opportunities for practice in verbalization. Group discussion and stories also aid the language development of the preschool-age child.

Opportunities to use a variety of creative arts materials, paints, crayons, dough, clay and collage allow the children to develop manipulative dexterity and to both express and impress their ideas and feelings through and on these media.

Manipulative materials of many types are provided to help the children develop hand-eye coordination and finger dexterity, as well as practice in shape differentiation.

Science and nature experiences not only provide further opportunities for language development, but also encourages curiosity and the examination and exploration of materials.

Field trips are used to develop verbal abilities and to expand the children's understanding of the world around them. They are also valuable in developing their understanding of many varied concepts.

In the housekeeping corner children can explore adult roles in dramatic play. This play also provides understanding of the children, as teachers observe their re-enactment of home life. Socialization occurs both in the doll corner and on the playground, as children share and take turns.

As the teachers encourage independence and the exploration of many materials, the children develop interests and skills which will help them when they enter the school system. For the teacher's acceptance of the children and recognition of each individual child's effort and abilities will help them develop better self concepts; the awareness that they are capable of achieving and are worthwhile individuals.

APPENDIX B

THE PRESCHOOL READINESS CENTERS PROGRAM

The Preschool program in East St. Louis, Illinois has been in operation since 1965. It is funded by the Office of Economic Opportunity and, until recently, was operated by the Delinquency Study and Youth Development Project of Southern Illinois University. Since March the program has been operated by the local Office of Economic Opportunity office. There are six centers currently in operation; four are located in local churches, one is located in a public housing project.

All the centers have three separate classes, each class serving 15 children. A child, depending on the class he is assigned to, may attend four half-days, two half-days, or three half-days per week. Each center has a teacher and a teacher's aide; both of whom are trained sub-professionals. In addition, the assigned family worker works in the center two days a week. The remainder of the time the family worker makes home visits, plans parent meetings, and writes reports. These family workers are also trained sub-professionals. Both teachers and iades are encouraged to enroll at Southern Illinois University, and many of them have or are taking courses.

Recently the East St. Louis program has received a supplementary grant for a pilot program, Head Start Planned Variation Program, which will be evaluated by Stanford Research Institute. This pilot program will change the structure of the centers. The proposed changes are illustrated in Appendix F.

The Program's central office staff consists of a Coordinator, an educational director, two social workers, a nurse and a nurses aide. The Program maintains a Preschool Advisory Board comprised of two parents from each center and eight professionals from the community. The Advisory Board's purpose is to advise the director in the formulation of general policy for all the centers, and to aid in coordinating center activities.

In practice the board meetings are little more than a means of keeping parents informed, and of getting their views on program changes. Despite early interest and participation by the eight professional members of the Preschool Advisory Board, their continued inclusion as members has more recently been in name only.

In addition to the Advisory Board members, each center has a parent group which meets once a month to plan social activities and field trips for the children of that center. It is also the responsibility of the parents to devise means of raising money to support these activities. The participating parents also try to encourage other parents to become involved in volunteer work in the center.

The Preschool Readiness Program includes medical and dental care for all center children. A physical examination is a requisite for the child's continued center participation.

Because the centers have no facilities for cooking food the lunch program initially consisted of a hot-sandwich box lunch catered by a local firm. During the past year a new lunch program has been initiated. Monotony of the sandwich diet, difficulty in effective teaching about foods and nutrition, and a lack of opportunities to involve the children in the lunch program prompted the change. Meals are now served family style. The children may participate by serving food and setting tables. For variety, and to enable the teaching staff to do meaningful teaching about food, a four-cycle seasonal menu has been instituted. Both morning and afternoon classes are served a hot lunch, as well as a snack during the three hour class session. Thus, an inordinate amount of time - fully one-third of the child's day - is spent in food preparation, serving and doing dishes. Unless the teacher is able to introduce meaningful learning experiences during these periods, the child's actual exposure to learning activities is very limited. Approval has been given to the Head Start project to operate its own lunch program. To date no changes have been made.

In the central office ongoing staff training is carried out by the educational director and the social workers. Weekly one-half day sessions, and a monthly all-day session are conducted. In addition, outside resource persons are sometimes utilized in this training, or visits made to other agencies or Preschool programs.

APPENDIX C

TEACHER PUPIL EVALUATION

CHILD________________________SCHOOL______________TEACHER_________

1. How would you rate this child's readiness for school?
    1. Poor
    2. Fair
    3. Average
    4. Good
    5. Excellent
2. How well do you expect this child to do in first grade?
    1. Poor
    2. Fair
    3. Average
    4. Good
    5. Excellent
3. How would you rate this child's learning ability?
    1. Very slow
    2. Slow
    3. Average
    4. Above Average
    5. Superior
4. How would you describe this child? (Check all items which you feel apply to child.)

____Withdrawn and shy

____Attentive

____Fast learner

____Careless in appearance

____Dull and depressed

____Overaggressive

____Outgoing and friendly

____Eager to learn

____Helpful

____Bright and cheerful

____Liked by peers

____Good appearance

____Short attention span

____Slow learner

____Inattentive

____Disliked by peers

____Disruptive

____Hyperactive

APPENDIX D

PARENT PARTICIPATION

Parent involvement in Head Start programs is receiving increasing emphasis nationally. In some programs the decision making function is in the hands of the parents; in other programs the parent groups are kept informed about policy or program changes, but their function is primarily to give approval to decisions that have already been made.

In the Preschool Readiness Centers program in East St. Louis and in many other Head Start programs, parent participation is largely thought of in terms of volunteer hours as a means to fulfill the requirement of in-kind contribution. The focus in this sense is 'participation' not 'involvement'. More recently the Preschool program has placed more emphasis on involvement, not only for parents of center children, but also for other members of the community. For example, in two centers adult education classes have begun. One center has 12 parents or area residents meeting twice a week; one-third of these parents will be able to obtain their GED by the end of the year. This class is taught by the Head Start Director. One of the social workers instructs a class of 9 parents at another center.

In an attempt to describe and evaluate the various aspects of the parent participation component of the Preschool program, records of parent group meetings, volunteer hours and Advisory Board minutes were examined. In addition, parents of Preschool children who entered first grade last fall were interviewed to determine their feelings and attitudes about the center program and their role in it.

Parent Participation: Advisory Board

Since 1966 two parents from each center have served as elected members to the Head Start Advisory Board; ten members have been elected each year. The composition of the Advisory Committee as originally conceived by the 1967 Head

Start Manual was 50 percent parents and 50 percent community representatives. The parents on the Advisory Board attend meetings regularly, but the community representatives rarely attend.

Parent Participation: Medical and Dental Program

An aspect of parent participation which is frequently overlooked is parent involvement in the medical and dental program.

Medical services were initiated in September, 1967. The services have stressed parent participation and responsibility for arranging appointments and making the visit to the doctor or dentist. In the interviews parents were asked what help, if any, was provided them by the Head Start staff. One-third of the parents mentioned the help and information given by the center nurse.

Of the 120 children entering first grade this fall, 117 or over 97 percent, had a physical examination while in the center program. Only three parents refused to cooperate.

Dental appointments were made for the children after several months in the center program. Appointments had been made for 78 percent of the children who entered first grade this fall. Three percent of the appointments were canceled by the parents, and another 15 percent failed to keep the appointment. Fifty percent of the children had completed all necessary dental work. Another 31 percent were examined but had not finished needed dental work at the time they entered first grade.

Health cards and records are kept current on each center child, and when the child enters public school his health card is sent to the Board of Education. In the centers regular vision checks are made; only 17 out of 120 children did not have a vision check during their center stay. In addition, the nurse and nurse's aide do regular scalp checks, tuberculin testing and toothbrush demonstrations.

What is the reason for this successful involvement? The nurse and nurse's aide feel that the following procedures have played an important role.

1. Constant communication with parents through home visits, letters, telephone calls and notes sent home with the children.

2. Continued emphasis on staff involvement. Teachers who are aware of the medical program can keep parents informed.

3. Parent meetings - by attending center parent meetings nurses are available to explain the program and to answer medical concerns of the parents.

4. Policy Advisory Board meetings: The nurse attempts to keep Advisory Board members aware of problems and the successes of the medical component. She also seeks the Board's advice concerning community resources and referrals.

Parent Group Meetings

Parent group meetings have been an integral part of parent involvement since the program began. Each center holds a parent meeting once a month. These meetings might be conceived of as having several important functions:

1. Social: Planning and giving parties for the children, planning fund raising activities, meeting other parents,etc.

2. Information: Keeping parents advised of changes in center program policies.

3. Services: Assisting parents in obtaining needed services, medical, dental, employment, etc.

4. Education: Educating parents in child care, nutritional needs, how to handle discipline, how to help child at home.

5. Community Involvement: Encouraging parents to take part in community affairs and activities of direct concern to them.

The Preschool Readiness Center parent group meetings have served all the above functions at some time, but the majority of parent meetings have provided only the first two.

Two full time social workers are on the staff of the Preschool Readiness Centers program. Each is responsible for three centers. Each center also has a family worker who is responsible to the social worker and the center teacher. The duties of the family worker are:

1. Assist the Social Worker in home visiting to collect information about family needs, and relay this information to the Social Worker.
2. Accompany parents to Social Agencies to serve as their advocate, if necessary.
3. Be the eyes and ears of the agency (Preschool Readiness Centers) in the community.
4. Keep the staff alert to the needs, problems and goals of the community in which they serve.
5. Assist in planning and accompanying parents and children to appointments.
6. Cooperate with and facilitate the use of existing community resources.
7. Assist in identifying children and families in greatest need of the program.
8. Assist in setting up field trips.
9. Assist the teacher in procurement of volunteer personnel in conjunction with teacher.
10. Organize parent groups in the center. Plan with parents and staff for monthly parent meetings.

11. Serve as Assistant Teacher 1½ days per week in respective centers. (This will enable worker to know the children he is working with.)

Parent meetings are planned by the social worker and the family worker assigned to the center. At times the social worker works directly with the parents; some parents take the initiative in planning meetings of interest to them. On the whole, the parent group meetings have been unimaginative and seem to appeal to a relatively small number of parents. There have been parent meetings of interest and benefit to a large number of parents, but these are few, the exception rather than the rule.

The children who entered school this fall, for example, were in the center program an average of 15 months. In that time only 50 percent, or 67 parents, attended even one parent meeting. Fifty-eight attended one meeting, and only 10 parents attended more than 5 parent group meetings. The 120 parents of Phase II children attended a total of 213 parent meetings during the period their child was in the center. If it is assumed that each parent had the opportunity to attend 15 meetings, the percent of actual participation is less than 12 percent. Attendance averages about 10 parents per meeting.

An examination of the minutes of the parent meetings may give some indication as to why so few parents attend, and often the same ones. Fully 90 percent of parent meetings are devoted entirely, or largely to planning parties for the children, fashion shows and fund raising activities. These are necessary and important aspects of parent involvement, but they obviously appeal to only a small number of parents. (Many parents will attend the fashion shows or parties, but will not attend the parent meetings at which they are planned.)

Parent Volunteers:

Parents are also involved as volunteers in the classroom. The parents of the 120 Phase II Preschool children had given a total of 1,984 volunteer hours. The distribution of time for varied activities is presented below:

	Hours
Assisting on field trips	377
Preparing and serving lunch	208
Repair, painting, making things for center	263
Planning, baking, serving at parties	730
Workshop, volunteer staffing	68
Conducting activities, reading to children, etc.	26
Supervising children, helping with toothbrushing, taking children for a walk, etc.	312
Total	1,984

Fully one-third of the total hours, however, was given by 4 parents. Almost half of the total was given by 10 parents.

Parent Interviews:

As part of the evaluation of the parent participation component of the Preschool Readiness Centers, eighty-nine parents of children entering first grade last fall were interviewed to determine how they felt about the program and their participation in it.

When asked what they thought of the Preschool Center their child attended, the responses were overwhelmingly positive. Only two parents had negative feelings toward the program, and several more were noncommittal. Most of them felt it had helped their child in some way. Forty-eight percent of the parents felt the center helped the child learn to share, and to get along with other children. Thirty percent mentioned that it helped the child get ready for school. The table below paresents some of the other comments of parents.

PARENT RESPONSES TO THE QUESTION: IN WHAT WAY DID THE PRESCHOOL CENTER HELP YOUR CHILD?

	Parent Responses	% of Parents Giving Response
1.	Helped child learn to share and get along with other children	48.3
2.	Prepare child for school	30.3
3.	Child learned to write his name	15.7
4.	Child learned his colors	18.0
5.	Helped child overcome shyness	13.5
6.	Child learned his ABC's	7.9
7.	Helped child speak better	10.1
8.	Taught child manners	9.0
9.	Child learned to keep clean	3.4
10.	Other responses	4.5

Some typical responses were:

> She was shy and it brought her out.
> He learned to communicate with people better.
> He has a better understanding and gets along with other children better.
> It helped him adjust to being away from home and how to behave in school.
> After she started to the center she lost her shyness and her English improved.
> To mind better and to write his name.
> She has better manners now.
> Well, I'll be honest; it helped keep him out of the streets, and he kept his clothes better.

Almost eighty percent of the parents interviewed had visited the center at some time during their child's enrollment. Parents were asked if they had ever been contacted by various members of the Preschool staff. From the responses it was obvious that the parents did not necessarily remember what contacts were made. Many parents gave the family worker's name as the center social worker. There were other obvious confusions about the role of some of the Preschool staff members and it was felt that the data, thus, would not really be relevant. However, over 80 percent of the parents reported that at least one member of the Preschool staff had contacted them by a home visit. Fifty percent reported having attended a parent-teacher conference.

The parents were asked if the Preschool program, or staff, had ever provided them with information that could help with problems they might be faced with. Forty-six percent of the parents interviewed indicated that they had received help or information relating to the child's medical or dental needs. Fifteen percent replied that they had no problems. Nine percent had received help in handling their child. Six percent of the parents indicated that they would not tell their problems to the staff. Only one parent reported asking social worker for help and not receiving it.

Forty-eight percent of the parents reported that they had served as a volunteer in the center. The activities these parents were involved in, and the percent of parents reporting taking part in the activities are listed below.

	Percent of Parents
Assist with children (washing hands, brushing teeth, taking children for walk, etc.	11.6
Read to or conduct activities for children	27.9
Prepare and serve food	46.5
Prepare, serve at parties, picnics, etc.	15.7
Mix paint, prepare for activities in center	20.9
Clean up center	9.3

When asked what they would like to do in the center, a somewhat different picture appears.

Desired Activity	Percent of Parents
What have been doing	28.0
Willing to do anything	23.3
Help with children	9.3
Serve/work in kitchen	9.3
Reading to, teaching children	30.2

Parents were asked if they had ever volunteered for other center activities. Forty-four percent of the parents interviewed reported having volunteered for other center activities at some time. Over half of these had accompanied children and teachers on field trips. Twenty-one percent had baked cakes for a party, or for cake sales. Another twenty percent made decorations, placemats, graduation hats, etc., for center parties. Many parents (74%) who had volunteered in the center felt that their work would have been more effective if they had had some training. Sixteen percent of the parents stated they were already experienced in what they were doing. Ten percent expressed no opinion. Some of the typical responses were:

> Everyone needs training to do a good job.
> Need training in teaching methods.
> Could use training in working with children.
> Would have more confidence, and feel it was worthwhile if we had some training.
> Would understand children better.

Parents were also asked if some of the practices and activities learned as a volunteer had helped them to provide more learning opportunities for the child at home. Twenty percent reported none; 20 percent reported they had learned to understand children better. Over one-third of the parent volunteers reported learning techniques, stories and songs to enable her to work with the child at home. Twelve percent reported learning how to handle discipline problems.

A variety of reasons were given for failure to become more involved in center activities. Almost 40 percent of the parents reported small children at home and lack of transportation made participation difficult. Sixteen percent reported that they were working, and twenty percent indicated that they had no reason for failing to become involved in the center program. Other reasons given were: "too busy," "nerves too bad," "illness." Most of the parents who were not able to participate because of babysitting and transportation difficulties admitted that both services had been offered by Preschool staff members.

Two-thirds of the parents interviewed said they had attended parent meetings. Almost 15 percent of these indicated that they had attended only one meeting. Over 20 percent said they had attended all the parent meetings held while their child was enrolled in the center. Parents were asked for a frank opinion of parent group meetings. Less than half responded that they enjoyed the meetings; half of the parents thought they were "alright", and only four expressed some negative feelings. Only two parents felt that the meetings were not helpful. All others felt that they had some value. Some parents felt that meetings had helped them communicate and get along better with people. The most common responses had to do with children. "Taught me how to take better care of my child," "I learned a little more about children."

Over half of the parents interviewed could not give any suggestions for improving the meetings. The most common suggestion made was "get more parents to attend." The majority of the parents said they felt free to participate in the discussions, and that the family worker or the parent conducting the meeting encouraged participation.

The list of topics most often discussed at the meetings, and the number of times this topic was mentioned by the 62 parents who attended meetings, is shown below.

Topic	Number of Times
Center activities and field trips	10
Planning parties	11
Getting more parents involved	11
Children	12
Fund raising	10
Food program	3
Health, Self Defense, Planned Parenthood	4

Over half of the parents represented above stated they were satisfied with the topics discussed.

Seventy percent of the parents interviewed expressed some interest in working in the Head Start, or Preschool program. Most felt that they would have a chance to be employed; others felt they did not have the training or the necessary qualifications to work with children.

Parents were asked if the involvement in the Preschool Centers program was helpful in encouraging them to become involved in other community programs. Thirty-four percent of the parents interviewed indicated that they were more aware of community problems. Many of these parents reported that they had become Girl Scout Leaders, or active P.T.A. members. Some have begun working in the neighborhood centers, attending block meetings, and working in other ways for community improvement.

Most of the parents felt free to go to the teachers to praise, or complain. Twenty-two percent stated that they had praised the teachers and the center program. Only two parents reported going to teachers to voice a complaint.

Parents were also asked how to get more men to participate in the program. Most of the parents had no suggestions, and simply replied that they did not know. Some parents did point out some of the reasons men do not participate. The most common reason given was that men are working and don't have time. Some felt that men are not interested in children, and that the program is primarily for women. One mother felt that men had to participate at home first. Another stated "they don't and won't participate in nothing, and never will." There were a few suggestions made; one parent thought the meetings might be held at night, or in a more relaxed place. Several parents reported that the men need to be told more about the program. Several suggested more men working in the program, and more masculine activities were needed.

When asked why so many parents do not participate, about half of the parents suggested illness, small children, or working, as reasons for poor participation. Thirty-three parents felt that many parents were just not interested in their children. Other responses varied:

They don't like it.
Lazy, is all I say.
They don't know the value of the program.
They're jealous of the teacher.
Don't know enough about the program.
Some don't know they are really needed.
Some feel they would be doing the teacher's
  job by volunteering.

Eighty percent of the parents who participated in the center program felt that participation had been helpful to them. One-third of these stated it helped them understand children better, and to work with their children at home. Others felt that it helped them overcome shyness, and meet the public.

APPENDIX E

1969 GOALS FOR THE EDUCATIONAL PROGRAM OF PRESCHOOL READINESS CENTERS

The educational component of Continued Preschool Readiness Centers will attempt to accomplish the following in 1969:

1. Implementation of Dr. Merle Karnes' approach for teaching culturally disadvantaged children. This will entail the use of the Illinois Test of Psycholinguistic Abilities as a tool for diagnosing levels of psycholinguistic abilities and, thereafter, conducting activities specifically designed to ameliorate identified deficits.

2. In-service training for teaching staff centered on conducting activities for developing psycholinguistic skills.

3. Implementation of a method of evaluating and recording children's progress and making reports to parents.

4. Implementation of a plan for ensuring quality of classroom activities and frequency of activities designed for developing specific cognitive skills.

5. Formulation of a comprehensive statement of educational philosophy and goals for the program, a planning guide for classroom activities and resource units for specific curricular areas, and an academic curriculum for the preschool.

The above stated goals are aimed at strengthening specific weak areas as recognized by the preschool educational staff or as ascertained through research.

In anticipation of specific changes and developments in the educational program in 1969, some preliminary work has been done since August, 1968. They are as follows:

A. Analysis of Dr. Merle Karnes' preschool curriculum approach of ameliorating psycholinguistic defecits as diagnosed by the Illinois Test of Psycholinguistic Abilities.

B. Collection of specific data (by Preschool Research staff): test scores of the Illinois Test of Psycholinguistic Abilities on a selected sample of children presently enrolled in Preschool Readiness enters.

C. Presentation of a summary of Dr. Karnes' approach to the teaching staff with discussion following.

D. Formulation of a tentative plan to incorporate activities for developing psycholinguistic skills in the preschool curriculum. Plan is as follows:

    1. Present comprehensive report of the Illinois Test of Psycholinguistic Abilities with emphasis on what it measures and the meanings of scores obtained through use of the instrument.

    2. Derive a profile of psycholinguistic abilities reflecting levels of abilities of children attending Preschool Readiness centers.

    3. Present profile to the teaching staff as one representative of psycholinguistic abilities among all children in Preschool Readiness centers. The assumption here is that all children have profiles highly similar to the one derived if they are tested on the ITPA.

    4. Define the heirarchy of weaknesses, as determined by ITPA scores, in attending Preschool Readiness centers. This would enable the teachers to recognize the relative emphases that have to be placed on specific types of skill-building activities.

    5. Conduct a series of workshops (weekly) for teaching staff focused on:

a) Some specific skill-building activities for preschool children.

b) How to effectively conduct these activities for preschool children (teaching and actual practice of methods of conducting these activities.)

c) Supplementation of main source with additional suggested activities.

6. Conduct activities in the classroom with supervision of professional staff.

7. Conduct activities in the classroom on a systematic basis; i.e., devote a specific amount of time per day to conducting these activities.

8. Effect some method of ongoing evaluation of children's growth in psycholinguistic abilities.

E. Workshops (held from September to November) devoted to the fundamental purpose of improving intergroup and interpersonal relationships. There was recognized a need to strengthen lines of communication, as well as promote better relationships, among staff as a necessary precedent to introducing any change in curriculum. It was felt that content input type of in-service training (as would be the type necessary for implementing the Karnes approach) would be of little value if some of the existing personnel problems were not dealt with. Also, the need to create and foster a feeling of receptiveness to change was recognized.

F. Actual implementation (December, 1968) of a method of recording children's progress and making reports to parents. It was made mandatory for teachers to rate children on fifteen items pertaining to performance, behavior and growth in the Preschool. A record of these ratings are to be kept on file in the central office and in the centers. The ratings for each child are to be recorded on a progress report form for parents and discussed with the parent or guardian at a parent-teacher conference. Brief accounts of what was discussed at the parent-teacher conference are to be recorded and kept on file in the central office and in the centers. This method, though begun, will be open to change for improvement in 1969.

G. Preliminary discussion focused on formulation of a planning guide and academic curriculum for the pre-school. The need for a planning guide and a curriculum is well recognized by the educational staff. Written responses have been submitted by the teachers as to the format and content of a written manual containing both elements.

APPENDIX F

PROPOSED CENTER OPERATIONS

FULL YEAR HEAD START - TOTAL 255 CHILDREN

15	15	15	15	15	25	20
Regular Head Start		Regular Head Start			Planned Variation Model	Regular Head Start
First Lutheran		Immaculate Conception			Orr-Weathers	
(2 classes - 30 children)		(3 classes - 45 children)			(2 classes - 45 children)	

25	20	25	20	25	20
Planned Variation Model	Regular Head Start	Planned Variation Model	Regular Head Start	Planned Variation Model	Regular Head Start
Pilgrim Baptist		Pilgrim Temple		First Methodist	
(2 classes - 45 children)		(2 classes - 45 children)		(2 classes - 45 children)	